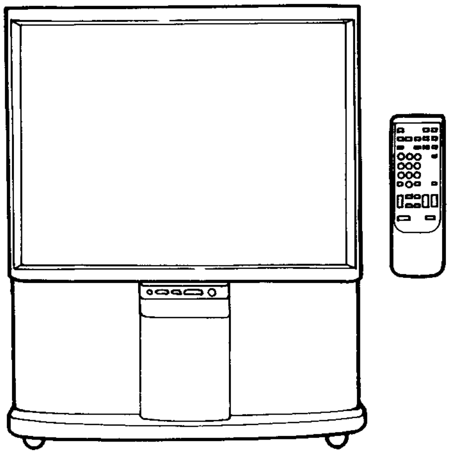
KPR-46EXR15/53EXR15
RM-Y112

SERVICE MANUAL

US Model
KPR-46EXR15
Chassis No. SCC-F19E-A
KPR-53EXR15
Chassis No. SCC-F19D-A



AP CHASSIS

MODELS OF THE SAME SERIES	
KPR-46EXR15/53EXR15	
KPR-46XBR15/53XBR15	
KPR-41EXR95	

SPECIFICATIONS

Structure	Screen and projector, rear projection type
Projection system	3 picture tubes, 3 lenses, horizontal in-line system
Picture tube	7 inch high-brightness monochrome tubes (5.5 raster size), with optical coupling and liquid cooling system
Projection lenses	High performance, larger-diameter hybrid lens F 1.0
Screen material	Plastic lenticular, Plastic fresnel
Resolution	850 lines (KPR-46EXR15) 900 lines (KPR-53EXR15)
Projected picture size (measured diagonally)	46 inches (KPR-46EXR15) 53 inches (KPR-53EXR15)
Screen brightness (cd/m^2)	1,600 (KPR-46EXR15) 1,250 (KPR-53EXR15)
Television system	American TV standards
Channel coverage	VHF: 2-13 UHF: 14-69 CABLE TV: 1-125
Antenna	75 ohm external antenna terminal for VHF/UHF

Input jacks VIDEO IN 1
- S VIDEO IN (4-pin mini DIN)
  - Y : 1 Vp-p, 75-ohms unbalanced, sync negative
  - C : 0.286 Vp-p (Burst signal) 75-ohms
- Video (phono jacks) : 1 Vp-p, 75-ohms unbalanced, sync negative
- Audio (phono jacks) :
  - 500 mVrms (100% modulation)
  - Impedance : 47 kilohms

VIDEO IN 2 and 3
- Video (phono jacks) : 1 Vp-p, 75-ohms unbalanced, sync negative
- Audio (phono jacks) :
  - 500 mVrms (100% modulation)
  - Impedance : 47 kilohms

- Continued on next page -

COLOR REAR VIDEO PROJECTOR

MICROFILM

SONY®

Output jacks	MONITOR OUT S VIDEO MONITOR OUT (4-pin mini DIN) Y : 1 Vp-p, 75-ohms unbalanced, sync negative Video (phono jacks) : 1Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks) : 500mVrms (100% modulation) Impedance : 10 kilohms AUDIO (VAR) OUT (phono jacks) More than 900mVrms (100% modulation) at the maximum volume setting (variable) Impedance : 5kiloohms AUDIO OUT (phono jacks) 900mVrms (100% modulation) Impedance : 5kiloohms
Speaker	Two-way coaxial speaker system Woofer 130 mm (5inches) diameter Tweeter 35 mm (1.4inches) diameter
Speaker output	12W×2
CENTER SPEAKER input	16Ω NORM. 30W MAX 50W
Power requirements	120 V AC, 60 Hz
Power consumption	310W (max) 7W (standby mode)
Dimensions (w/h/d)	1,029×1,287×543 mm (KPR-46EXR15) ($40\frac{5}{8} \times 50\frac{3}{4} \times 21\frac{1}{2}$ inches) 1,164×1,336×651 mm (KPR-53EXR15) ($45\frac{7}{8} \times 52\frac{5}{8} \times 25\frac{3}{4}$ inches)
Weight	90 kg (198 lb 7 oz) (KPR-46EXR15) 92 kg (202 lb 13 oz) (KPR-53EXR15)
Supplied accessories	Remote Commander RM-Y112 (1) with 2 size AA (R6) EVEREADY batteries
Optional accessories	U/V mixer EAC-66 Connecting cable RK-74A VMC-810S/820S YC-15V/30V VCR Tray SU-PJT1

Design and specifications are subject to change without notice.

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURTCIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.

LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS ÁLA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a coldwater pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

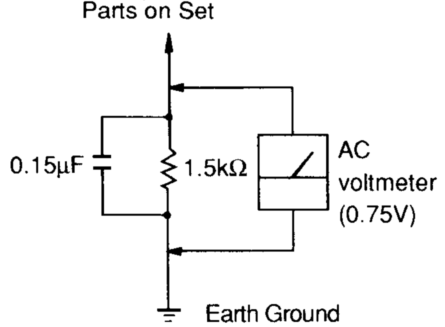


Fig. A. Using an AC voltmeter to check AC leakage.

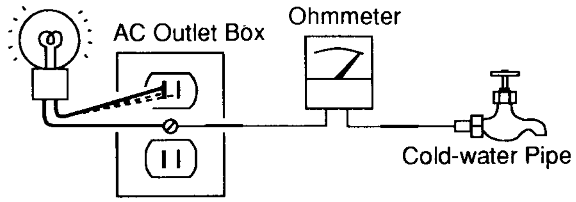


Fig. B. Checking for earth ground.

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SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

1-1. UNPACKING AND VIEWING AREA

1 Carefully follow the instructions on the outside of the packing carton to unpack the projection TV.

Notes
- The supplied accessories are packed in the bottom of the carton. Be sure not to throw them away.
- Keep the original carton and packing materials to safely transport the projection TV in the future.

2 Check to make sure that the following is included:

Universal Remote Commander RM-Y112 (1)
with 2 size AA (R6) EVEREADY batteries

If the Remote Commander is missing, contact your dealer.

3 Place the projection TV in a cool, dry place where the ventilation openings at the sides are not blocked.

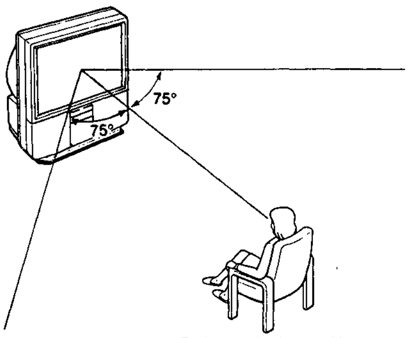
4 Plug the projection TV power cord into an AC 120 volt power outlet.

For further precautions, see p. 2.

Optimum viewing area

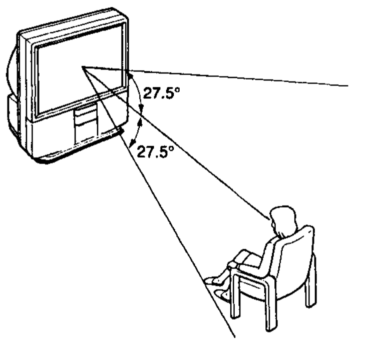
For the best picture quality, try to position the projection TV so that you can view the screen from within the areas shown below.

Horizontal viewing area



Optimum viewing position

Vertical viewing area

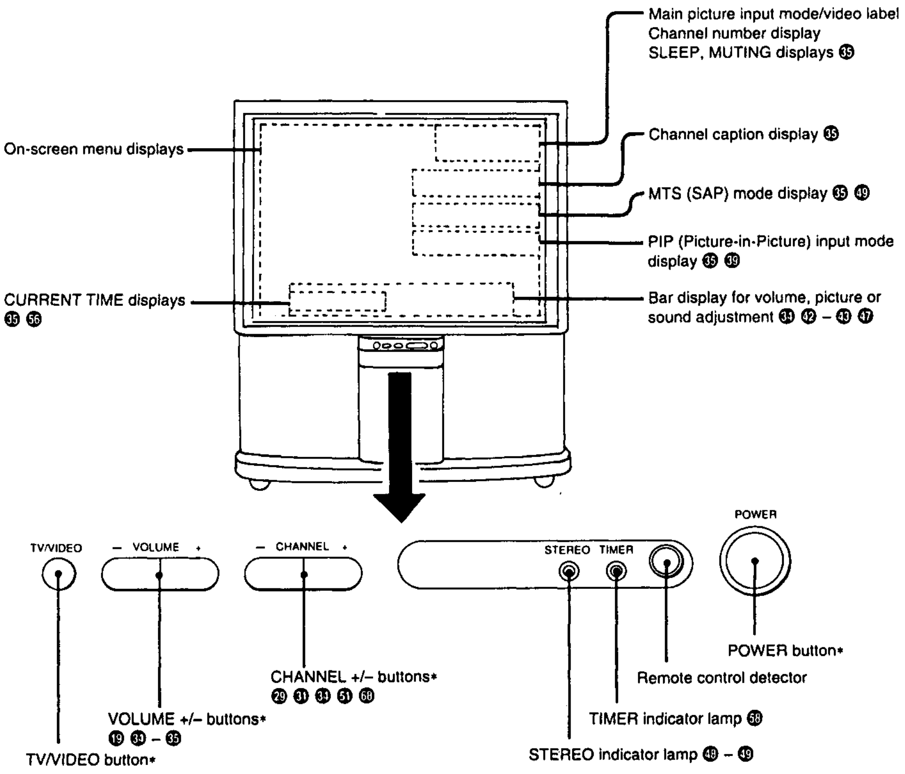


Optimum viewing position

1-2. LOCATING CONTROLS AND CONNECTORS

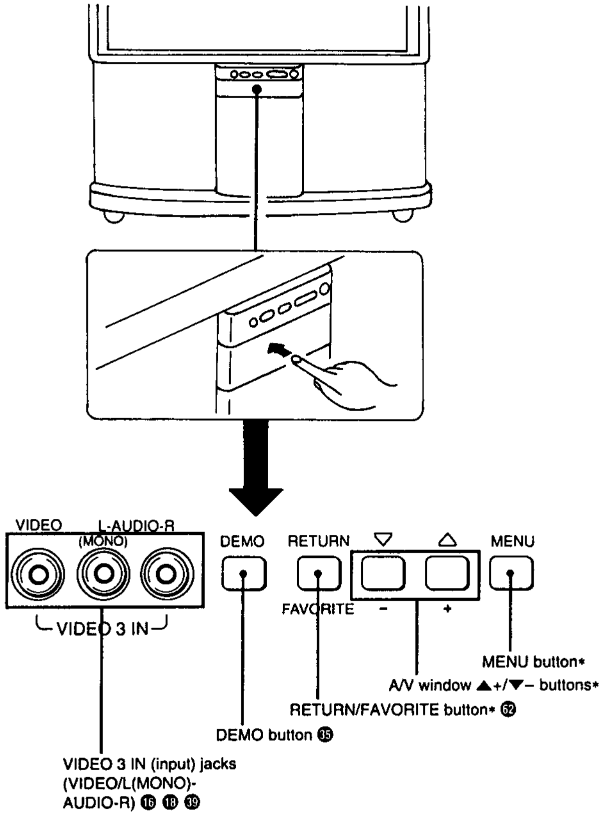
For details, see the pages indicated by the numbered black circles ●.

Front


Main picture input mode/video label
Channel number display
SLEEP, MUTING displays ㉟
On-screen menu displays
Channel caption display ㉟
MTS (SAP) mode display ㉟ ㊾
PIP (Picture-in-Picture) input mode display ㉟ ㊴
CURRENT TIME displays ㉟ (56)
Bar display for volume, picture or sound adjustment ㉞ ㊷ – ㊸ ㊼
TV/VIDEO
– VOLUME +
– CHANNEL +
STEREO
TIMER
POWER
POWER button*
Remote control detector
CHANNEL +/– buttons* ㉙ ㉛ ㉞ (51) (68)
VOLUME +/– buttons* ⑲ ㉞ – ㉟
TV/VIDEO button*
TIMER indicator lamp (58)
STEREO indicator lamp ㊽ – ㊾

* Buttons with the same function are also located on the Remote Commander (p. 10).

Front inner panel

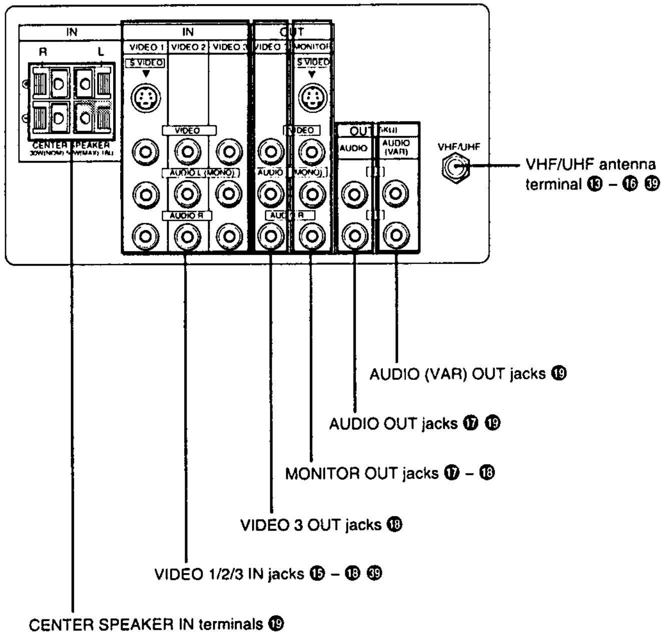

VIDEO
L-AUDIO-R
(MONO)
VIDEO 3 IN
DEMO
RETURN
FAVORITE
▽
△
–
+
MENU
MENU button*
A/V window ▲+/▼– buttons*
RETURN/FAVORITE button* (62)
DEMO button ㉟
VIDEO 3 IN (input) jacks (VIDEO/L(MONO)-AUDIO-R) ⓰ ⓲ ㊴

* Buttons with the same function are also located on the Remote Commander (p. 10).

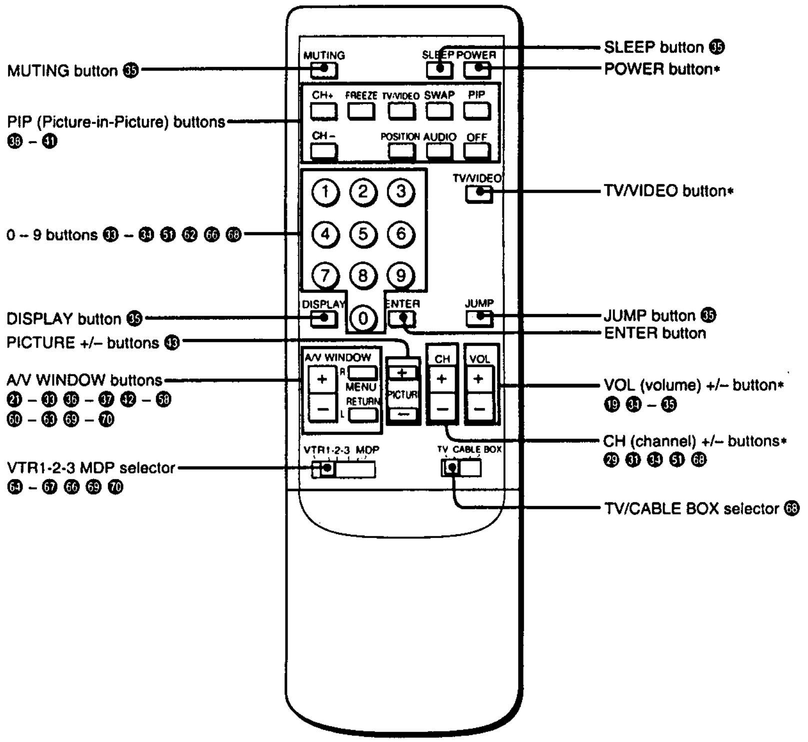
Note

The instructions in this manual are based for the most part on operating the projection TV with the Remote Commander. You can also use the buttons on the projection TV that have the same function.

Rear


IN
R
L
CENTER SPEAKER
IN
VIDEO 1
VIDEO 2
VIDEO 3
OUT
MONITOR
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
AUDIO
AUDIO (VAR)
VHF/UHF
VHF/UHF antenna terminal ⓭ – ⓰ ㊴
AUDIO (VAR) OUT jacks ⓳
AUDIO OUT jacks ⓱ ⓳
MONITOR OUT jacks ⓱ – ⓲
VIDEO 3 OUT jacks ⓲
VIDEO 1/2/3 IN jacks ⓯ – ⓲ ㊴
CENTER SPEAKER IN terminals ⓳

Remote Commander RM-Y112 (with the video control cover closed)


MUTING button ㉟
PIP (Picture-in-Picture) buttons ㊳ – ㊶
0 – 9 buttons ㉝ – ㉞ (51) (62) (66) (68)
DISPLAY button ㉟
PICTURE +/– buttons ㊸
A/V WINDOW buttons ㉑ – ㉝ ㊱ – ㊲ ㊷ – (58) (60) – (63) (69) – (70)
VTR1-2-3 MDP selector (64) – (67) (66) (69) (70)
SLEEP button ㉟
POWER button*
TV/VIDEO button*
JUMP button ㉟
ENTER button
VOL (volume) +/– button* ⑲ ㉞ – ㉟
CH (channel) +/– buttons* ㉙ ㉛ ㉞ (51) (68)
TV/CABLE BOX selector (68)
MUTING
SLEEP POWER
CH+ FREEZE TV/VIDEO SWAP PIP
CH– POSITION AUDIO OFF
TV/VIDEO
1 2 3 4 5 6 7 8 9 0
DISPLAY ENTER JUMP
A/V WINDOW R MENU RETURN L
PICTURE
CH VOL
VTR1-2-3 MDP
TV CABLE BOX

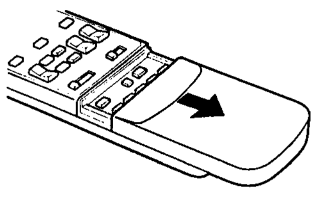
* Buttons with the same function are also located on the projection TV (p. 7).

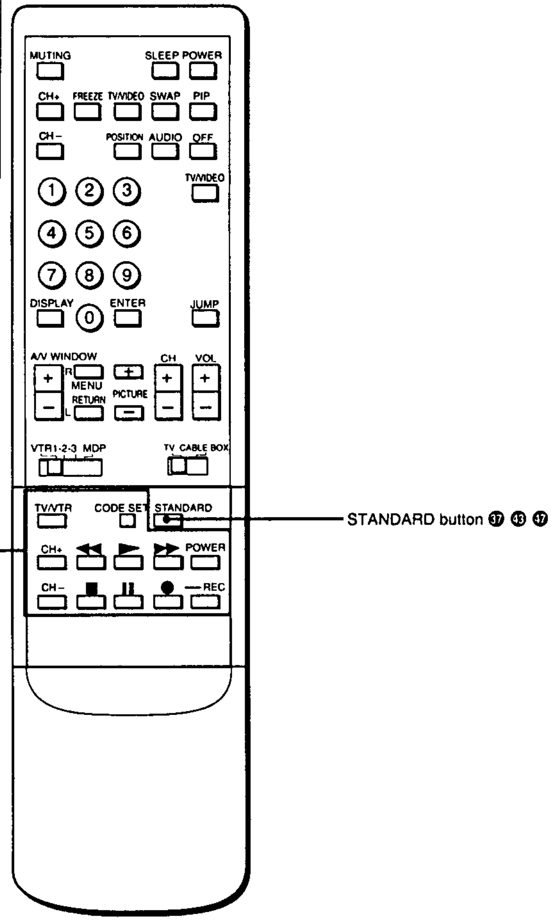
Note
If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the projection TV (p. 68). Set the selector to TV to control the projection TV with the Remote Commander.

Remote Commander RM-Y112 (with the video control cover open)

Opening the video control cover

Slide the cover down.

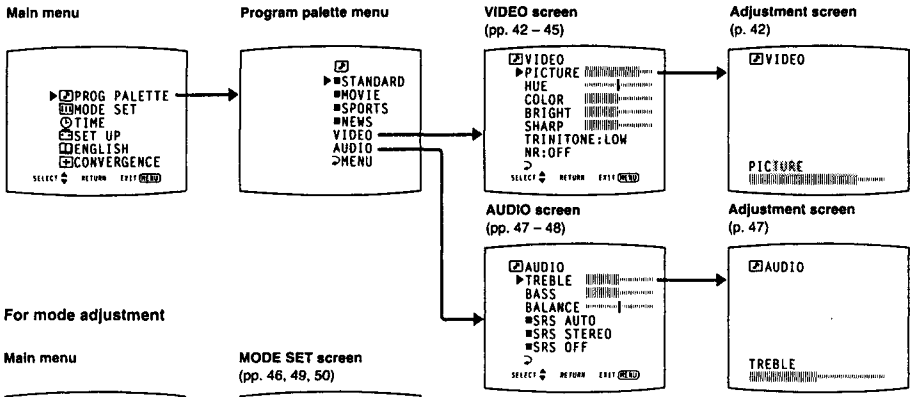



Video operating buttons (64) – (66) (69)
STANDARD button ㊲ ㊸ ㊼
MUTING
SLEEP POWER
CH+ FREEZE TV/VIDEO SWAP PIP
CH– POSITION AUDIO OFF
TV/VIDEO
1 2 3 4 5 6 7 8 9 0
DISPLAY ENTER JUMP
A/V WINDOW R MENU RETURN L
PICTURE
CH VOL
VTR1-2-3 MDP
TV CABLE BOX
TV/VTR CODE SET STANDARD
CH+ POWER
CH– REC

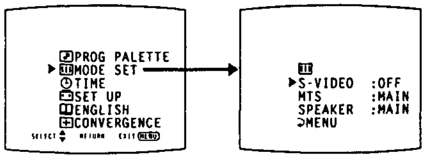
1-3. USING THE ON-SCREEN MENUS

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

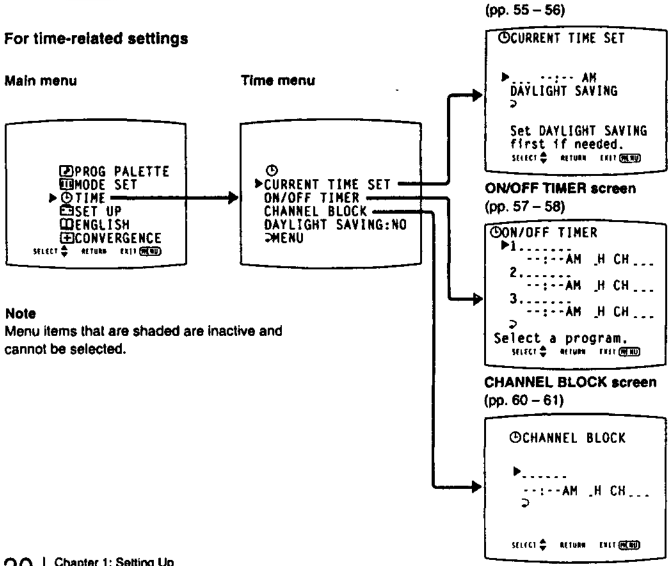
For picture and sound quality adjustment


Main menu
▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU
Program palette menu
▶STANDARD
MOVIE
SPORTS
NEWS
VIDEO
AUDIO
MENU
VIDEO screen
(pp. 42 – 45)
VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
SELECT RETURN EXIT MENU
Adjustment screen
(p. 42)
VIDEO
PICTURE
AUDIO screen
(pp. 47 – 48)
AUDIO
▶TREBLE
BASS
BALANCE
SRS AUTO
SRS STEREO
SRS OFF
SELECT RETURN EXIT MENU
Adjustment screen
(p. 47)
AUDIO
TREBLE

For mode adjustment

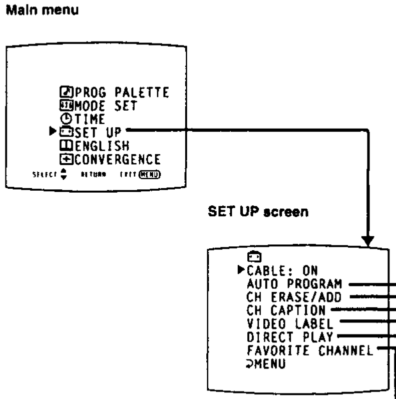

Main menu
PROG PALETTE
▶MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU
MODE SET screen
(pp. 46, 49, 50)
▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
MENU

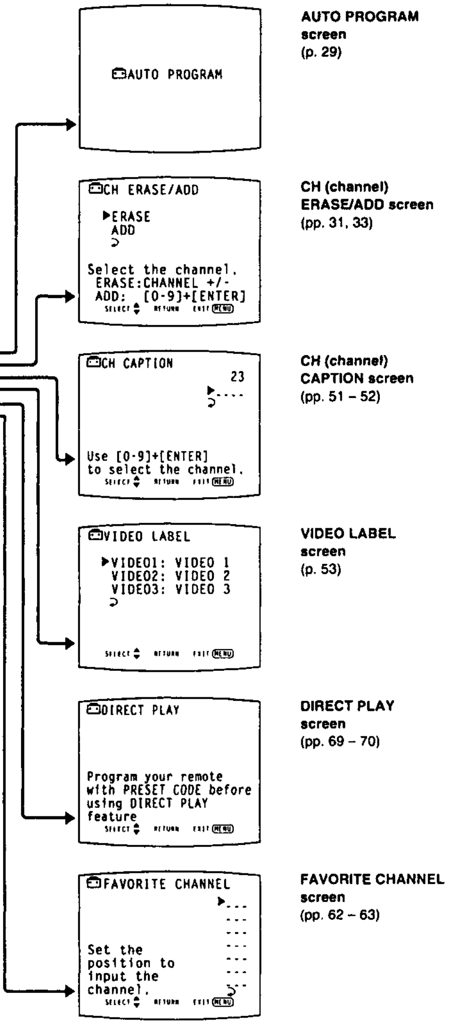
For time-related settings


Main menu
PROG PALETTE
MODE SET
▶TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU
Time menu
▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU
CURRENT TIME SET screen
(pp. 55 – 56)
CURRENT TIME SET
▶-- --:-- AM
DAYLIGHT SAVING
Set DAYLIGHT SAVING
first if needed.
SELECT RETURN EXIT MENU
ON/OFF TIMER screen
(pp. 57 – 58)
ON/OFF TIMER
▶1.-------
--:--AM .H CH...
2.-------
--:--AM .H CH...
3.-------
--:--AM .H CH...
Select a program.
SELECT RETURN EXIT MENU
CHANNEL BLOCK screen
(pp. 60 – 61)
CHANNEL BLOCK
▶------
--:--AM .H CH...
SELECT RETURN EXIT MENU

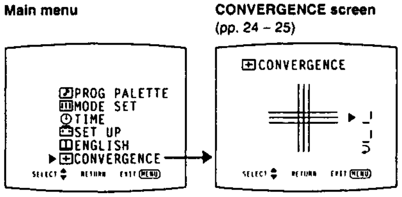
Note
Menu items that are shaded are inactive and cannot be selected.

For presetting and other functions


Main menu
PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU
SET UP screen
▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
MENU

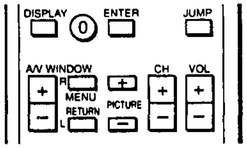

AUTO PROGRAM
AUTO PROGRAM screen
(p. 29)
CH ERASE/ADD
▶ERASE
ADD
Select the channel.
ERASE:CHANNEL +/-
ADD: [0-9]+[ENTER]
SELECT RETURN EXIT MENU
CH (channel) ERASE/ADD screen
(pp. 31, 33)
CH CAPTION
23
▶----
Use [0-9]+[ENTER]
to select the channel.
SELECT RETURN EXIT MENU
CH (channel) CAPTION screen
(pp. 51 – 52)
VIDEO LABEL
▶VIDEO1: VIDEO 1
VIDEO2: VIDEO 2
VIDEO3: VIDEO 3
SELECT RETURN EXIT MENU
VIDEO LABEL screen
(p. 53)
DIRECT PLAY
Program your remote
with PRESET CODE before
using DIRECT PLAY
feature
SELECT RETURN EXIT MENU
DIRECT PLAY screen
(pp. 69 – 70)
FAVORITE CHANNEL
▶...
Set the
position to
input the
channel.
SELECT RETURN EXIT MENU
FAVORITE CHANNEL screen
(pp. 62 – 63)

For CONVERGENCE adjustment


Main menu
CONVERGENCE screen
(pp. 24 – 25)
PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
▶CONVERGENCE
SELECT RETURN EXIT MENU
CONVERGENCE
SELECT RETURN EXIT MENU

Navigating through the menus

Remote Commander


DISPLAY
ENTER
JUMP
A/V WINDOW
CH
VOL
MENU
RETURN
PICTURE

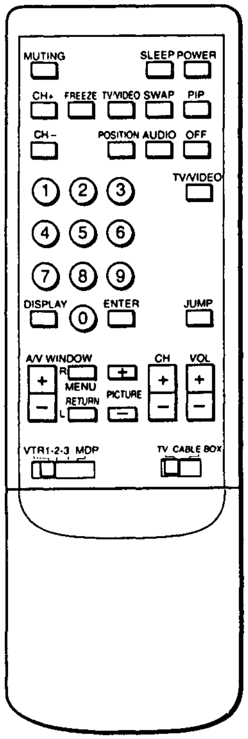
To display the main menu
Press MENU.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

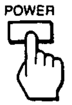
Note
The menus disappear automatically, if you do not press a button within 90 seconds.

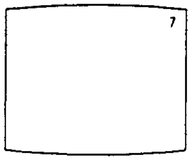

MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH-
POSITION
AUDIO
OFF
TV/VIDEO
1
2
3
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1-2-3
MDP
TV
CABLE BOX

Changing the menu language

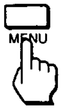
The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or French, or back to English.

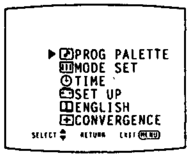
1 Press POWER to turn on the projection TV.



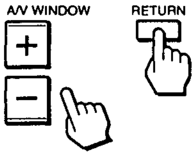


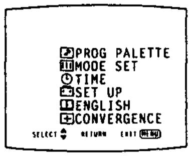
2 Press MENU.
The main menu appears.



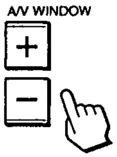

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE

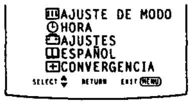
3 Press A/V WINDOW +/– until the cursor points to "ENGLISH."
Then press RETURN.
The language display turns red.

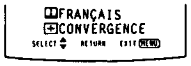

A/V WINDOW
RETURN

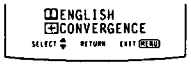

PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE

4 Press A/V WINDOW +/– to select the language.
Each time you press A/V WINDOW +/–, the "ESPAÑOL," "FRANÇAIS" and "ENGLISH" menus appear.



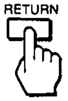

AJUSTE DE MODO
HORA
AJUSTES
ESPAÑOL
CONVERGENCIA

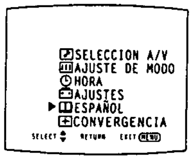

FRANÇAIS
CONVERGENCE


ENGLISH
CONVERGENCE

Note
Certain parts of the "ESPAÑOL" and "FRANÇAIS" menus remain in English.

5 Press RETURN.
The language is selected.



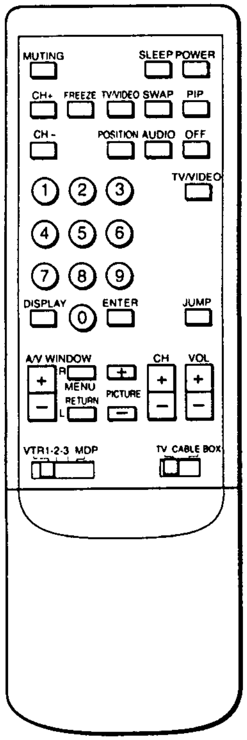

SELECCION A/V
AJUSTE DE MODO
HORA
AJUSTES
▶ESPAÑOL
CONVERGENCIA

Spanish menu

To return to the normal screen.
Press MENU.

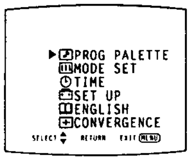
Notes concerning menus
- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
- The menus disappear automatically, if you do not press a button within 90 seconds.

1-4. ADJUSTING COLOR REGISTRATION (CONVERGENCE)

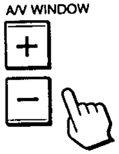

MUTING
SLEEP POWER
CH+ FREEZE TV/VIDEO SWAP PIP
CH- POSITION AUDIO OFF
TV/VIDEO
1 2 3
4 5 6
7 8 9
DISPLAY 0 ENTER JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1-2-3 MDP
TV CABLE BOX

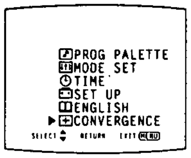
In a projection TV, the projection tube image appears on the screen in three color layers (red, green and blue). If these layers are not in proper registration, the color is poor and the picture blurs. To correct this, perform the CONVERGENCE adjustment.

1 Press MENU.
The main menu appears.

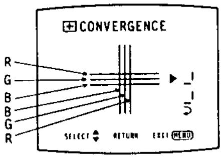

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press A/V WINDOW +/– until the cursor points to "CONVERGENCE."



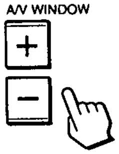

PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
▶CONVERGENCE
SELECT RETURN EXIT MENU

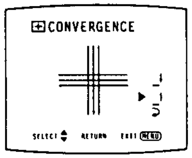
3 Press RETURN.
The CONVERGENCE screen and the colored adjustment lines appear.


CONVERGENCE
R
G
B
B
G
R
SELECT RETURN EXIT MENU

R = Red
G = Green
B = Blue

4 Press A/V WINDOW +/– until the cursor points to the symbol representing the line you want to adjust (see the key below).

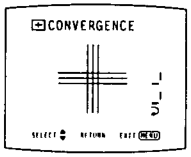



CONVERGENCE
SELECT RETURN EXIT MENU

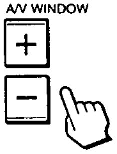
Adjustment line symbols key

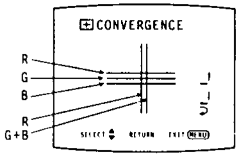
| (red vertical: left/right adjustment)
— (red horizontal: up/down adjustment)
| (blue vertical: left/right adjustment)
— (blue horizontal: up/down adjustment)

5 Press RETURN.
The adjustment line is selected.


CONVERGENCE
SELECT RETURN EXIT MENU

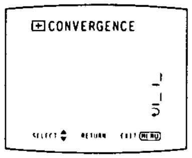
6 Press A/V WINDOW +/– until the line converges with the center green line. Then press RETURN.




CONVERGENCE
R
G
B
R
G+B
SELECT RETURN EXIT MENU

To move up To move right	Press A/V WINDOW +.
To move down To move left	Press A/V WINDOW –.

7 Repeat steps 4 – 6 to adjust the other lines, until all the lines have overlapped to form a white cross.

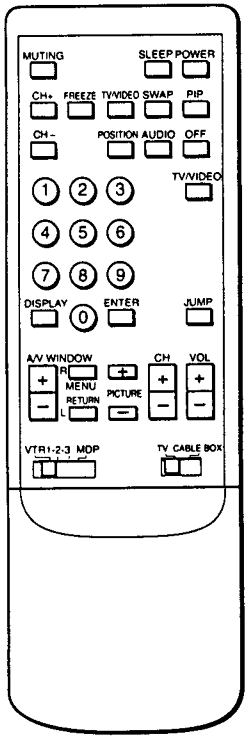

CONVERGENCE
SELECT RETURN EXIT MENU

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

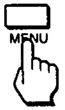
1-5. SETTING CABLE ON OR OFF

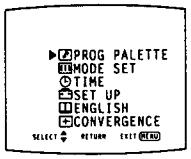

MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH-
POSITION
AUDIO
OFF
TV/VIDEO
1
2
3
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1-2-3 MDP
TV CABLE BOX

If you have cable connected to the projection TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

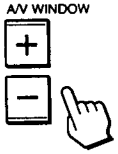
Note
If the projection TV is in video mode, the "CABLE" display is shaded and cannot be selected.
Press TV/VIDEO to change to TV mode.

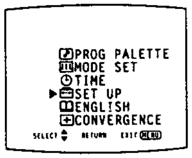
1 Press MENU.
The main menu appears.



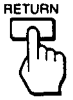

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

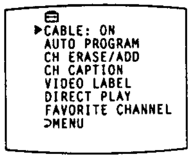
2 Press A/V WINDOW +/– until the cursor points to "SET UP."



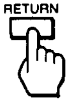

PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

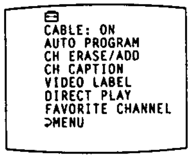
3 Press RETURN.
The set up menu appears, and the cursor points to "CABLE."



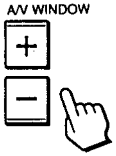

▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
⊃MENU

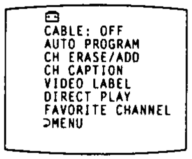
4 Press RETURN again.
The mode display turns red.



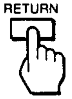

CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
⊃MENU

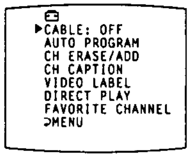
5 Press A/V WINDOW +/– to select "ON" or "OFF."




CABLE: OFF
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
⊃MENU

6 Press RETURN.
The setting is complete.




▶CABLE: OFF
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
⊃MENU

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

Cable TV channel chart•
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

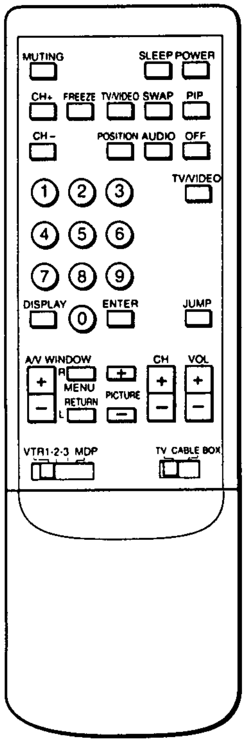
Number on this TV	Corresponding CATV channel
1	A-8
5	A-7
6	A-6
14	A
15	B
16	C
17	D
18	E
19	F
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	Q
31	R
32	S
33	T
34	U
35	V
36	W
37	W+1
38	W+2
39	W+3
⋮	⋮
93	W+57
94	W+58
95	A-5
96	A-4
97	A-3
98	A-2
99	A-1
100	W+59
101	W+60
102	W+61
⋮	⋮
123	W+82
124	W+83
125	W+84

Check with your local cable TV company for more complete information on the available channels.

- The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

1-6. PRESETTING TV CHANNELS

By presetting TV channels to the projection TV, you can select channels by pressing CH (CHANNEL) +/–.
(You can select VHF channels 2 – 13 without presetting.)


MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH–
POSITION
AUDIO
OFF
TV/VIDEO
1
2
3
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
MENU
RETURN
PICTURE
CH
VOL
VTR1·2·3
MDP
TV
CABLE BOX

Presetting all receivable channels automatically

Follow these instructions to preset all the receivable VHF, UHF or cable TV channels to the projection TV.

Notes

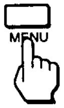
- If the projection TV is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.
- Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

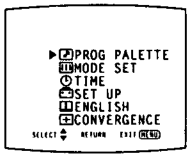
1 Set the cable connection on or off (pp. 26 – 27) to select the type of channel you want to preset, VHF/UHF or cable TV.

To preset VHF
or UHF channels

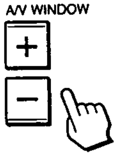
To preset
cable TV channels

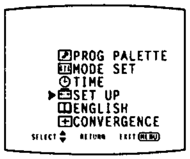
2 Press MENU.
The main menu appears.



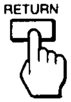

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT ⇕ RETURN EXIT MENU

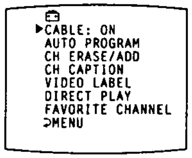
3 Press A/V WINDOW +/– until the cursor points to "SET UP."



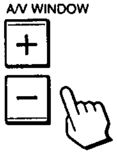

PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT ⇕ RETURN EXIT MENU

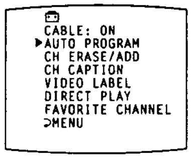
4 Press RETURN.
The set up menu appears.



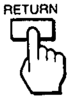

▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
⊃MENU

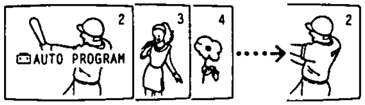
5 Press A/V WINDOW +/– until the cursor points to "AUTO PROGRAM."




CABLE: ON
▶AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
⊃MENU

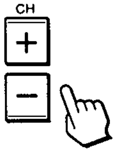
6 Press RETURN.

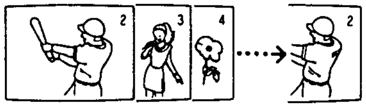



AUTO PROGRAM
2
3
4
2

"AUTO PROGRAM" *appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the projection TV's memory.*
When no more channels are found, auto programming stops and the screen returns automatically to the set up menu.

7 Press CH +/– to check or view the preset channels.





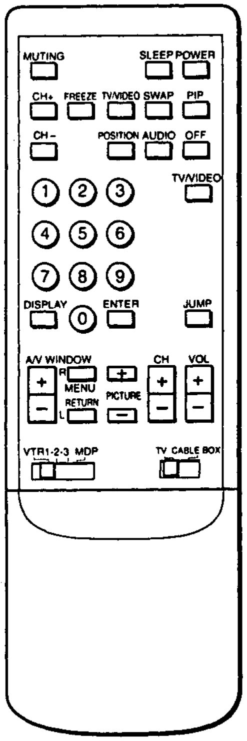
Receivable channels for this projection TV
VHF: 2 – 13
UHF: 14 – 69
Cable: 1 – 125

To select TV channels without presetting
Press the 0 – 9 buttons and ENTER.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

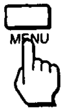

MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH-
POSITION
AUDIO
OFF
TV/VIDEO
1
2
3
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1·2·3 MDP
TV CABLE BOX

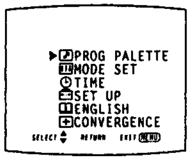
Erasing TV channels

Follow these instructions to erase unnecessary TV channels, so that when you press CH +/–, the channel(s) are skipped.

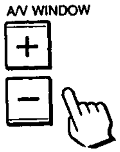
1 Press MENU

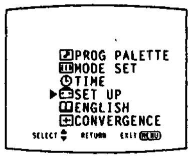
The main menu appears.




▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

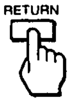
2 Press A/V WINDOW +/– until the cursor points to "SET UP."

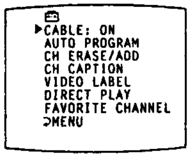



PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

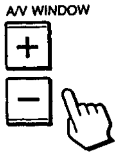
3 Press RETURN

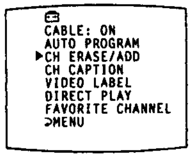
The set up menu appears.




▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
⊃MENU

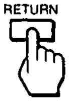
4 Press A/V WINDOW +/– until the cursor points to "CH ERASE/ADD."

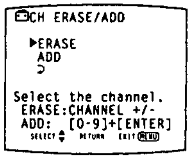



CABLE: ON
AUTO PROGRAM
▶CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
⊃MENU

5 Press RETURN.

The CH ERASE/ADD screen appears, and the cursor points to "ERASE."

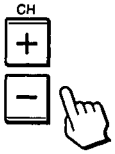


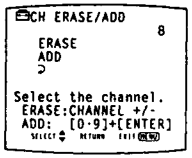

CH ERASE/ADD
▶ERASE
ADD
⊃
SELECT
RETURN
EXIT MENU

Select the channel.
ERASE:CHANNEL +/-
ADD: [0-9]+[ENTER]

6 Press CH +/– to select the channel you want to erase.

The channel display appears.

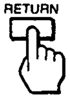


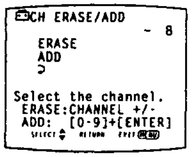

CH ERASE/ADD
8
ERASE
ADD
⊃
SELECT
RETURN
EXIT MENU

Select the channel.
ERASE:CHANNEL +/-
ADD: [0-9]+[ENTER]

7 Press RETURN.

A "–" sign appears in front of the channel number display, indicating that the channel is erased; then the CH ERASE/ADD screen automatically reappears.




CH ERASE/ADD
– 8
ERASE
ADD
⊃
SELECT
RETURN
EXIT MENU

Select the channel.
ERASE:CHANNEL +/-
ADD: [0-9]+[ENTER]

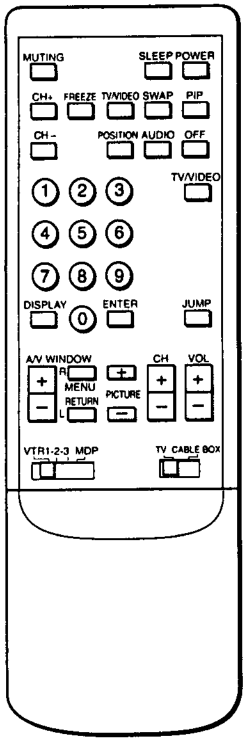
To erase another channel
Repeat steps 6 – 7.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

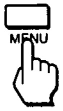
Note
If you erase a VHF or UHF channel, the same, number cable TV channel is also erased (and vice versa).

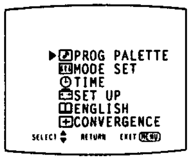

MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH-
POSITION
AUDIO
OFF
TV/VIDEO
1
2
3
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1·2·3
MDP
TV
CABLE BOX

Adding TV channels

Follow these instructions to add TV channels one by one to the selection memory, or to replace a TV channel you previously erased (pp. 30 – 31).

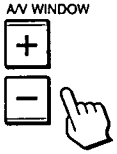
1 Press MENU
The main menu appears.

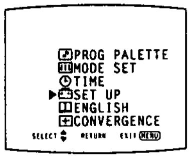




```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT⇕  RETURN  EXIT MENU
```

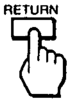
2 Press A/V WINDOW +/– until the cursor points to "SET UP."

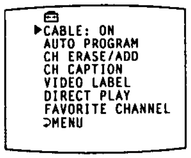




```
 PROG PALETTE
 MODE SET
 TIME
▶SET UP
 ENGLISH
 CONVERGENCE
SELECT⇕  RETURN  EXIT MENU
```

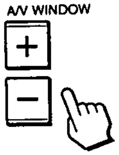
3 Press RETURN.
The set up menu appears.

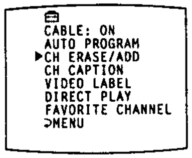




```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 FAVORITE CHANNEL
 ⊃MENU
```

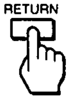
4 Press A/V WINDOW +/– until the cursor points to "CH ERASE/ADD."

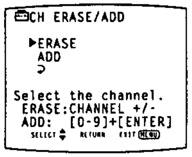




```
 CABLE: ON
 AUTO PROGRAM
▶CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 FAVORITE CHANNEL
 ⊃MENU
```

5 Press RETURN.
The CH ERASE/ADD screen appears.



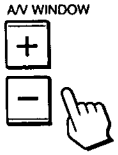


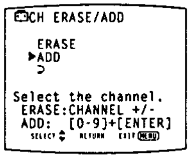
```
CH ERASE/ADD

 ▶ERASE
  ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
  SELECT⇕  RETURN  EXIT MENU
```

6 Press A/V WINDOW +/– until the cursor points to "ADD."



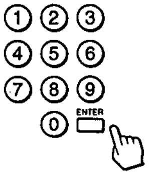


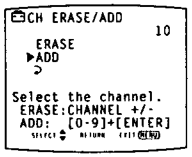
```
CH ERASE/ADD

  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
  SELECT⇕  RETURN  EXIT MENU
```

7 Press 0 – 9 and ENTER to select the channel you want to add.
The channel display appears.

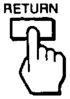

1
2
3
4
5
6
7
8
9
0
ENTER

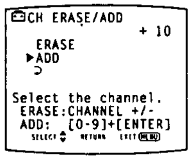


```
CH ERASE/ADD
                  10
  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
  SELECT⇕  RETURN  EXIT MENU
```

8 Press RETURN
A "+" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.





```
CH ERASE/ADD
                + 10
  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
  SELECT⇕  RETURN  EXIT MENU
```

To add another channel
Repeat steps 7 – 8.

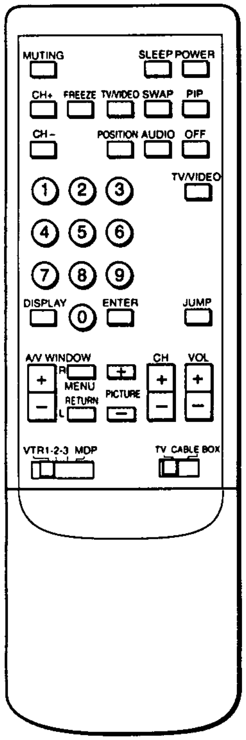
To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

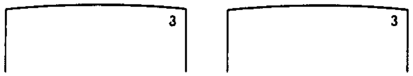
Note
If you add a VHF or UHF channel, the same number cable TV channel is also added (and vice versa).

1-7. WATCHING TV PROGRAMS


MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH–
POSITION
AUDIO
OFF
TV/VIDEO
DISPLAY
ENTER
JUMP
A/V WINDOW
MENU
RETURN
PICTURE
CH
VOL
VTR1·2·3
MDP
TV CABLE BOX

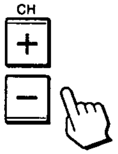
Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV, in order to control the projection TV with the Remote Commander.

1 Set the cable connection on or off (pp. 26 – 27) to select the type of channel you want to watch, VHF/UHF or cable TV.

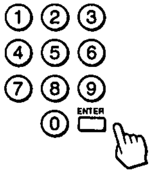


To watch VHF or UHF channels	To watch cable TV channels

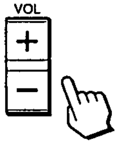
2 Select a channel in one of the following two ways:
To scan the preset channels in numerical sequence, press CH +/–.

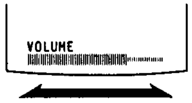


To select a channel directly, press 0 – 9 and then ENTER.
For example, to select channel 10, press 1, 0 and ENTER.



3 Press VOL +/– to adjust the volume.





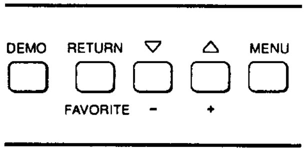
Press + to increase the volume.
Press – to decrease the volume.

If VIDEO 1, VIDEO 2 or VIDEO 3 appears on the screen
Press TV/VIDEO until a TV channel number appears.

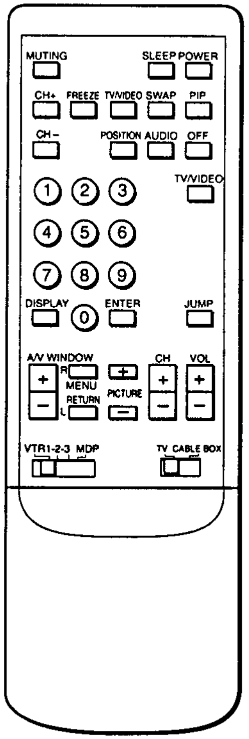
To select channels more easily
Set FAVORITE CHANNEL (pp. 62 – 63).

To turn off the projection TV
Press POWER.

1-8. USING CONVENIENT FEATURES


DEMO
RETURN
▽
△
MENU
FAVORITE
–
+

Front inner panel


MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH–
POSITION
AUDIO
OFF
TV/VIDEO
DISPLAY
ENTER
JUMP
A/V WINDOW
MENU
RETURN
PICTURE
CH
VOL
VTR1·2·3
MDP
TV CABLE BOX

Muting the sound — MUTING

Press MUTING.
"MUTING" appears on the screen.

To restore the sound
Press MUTING again, or press VOL +.

Keeping the displays on-screen — DISPLAY

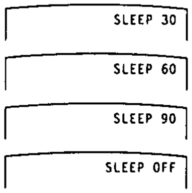
Press DISPLAY.
All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode, and the current time ("AM" or "PM" disappears after about three seconds).

To turn off the displays
Press DISPLAY again.

Setting the sleep timer — SLEEP

The sleep timer turns off the projection TV automatically after the amount of time you select.

Press SLEEP.
Each time you press SLEEP, the time increments "30," "60," "90" and "OFF" mode appear in sequence.


SLEEP 30
SLEEP 60
SLEEP 90
SLEEP OFF

A red "SLEEP" display appears about one minute before the projection TV goes off.

To cancel the setting.
Press SLEEP until OFF mode appears.
A green "SLEEP OFF" display appears for about three seconds.
OR
Turn the projection TV off.
The sleep timer setting is cancelled.

Switching quickly between two channels — JUMP

Use this function to keep track of two programs alternately.

To recall the channel you were watching previously
Press JUMP.

To switch back to the first channel
Press JUMP again.

Previewing the features — DEMO

Press DEMO (front inner panel).
Functions and menus are displayed one by one.

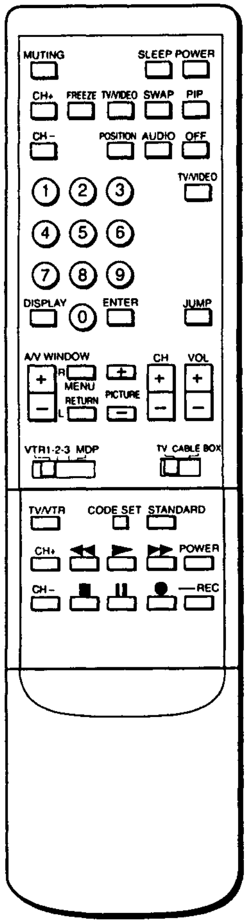
To restart DEMO from the beginning
Press DEMO again.

To stop DEMO
Press any button.

1-9. SELECTING A PICTURE AND SOUND MODE

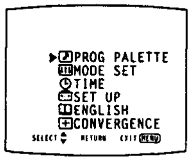
This projection TV features four modes (STANDARD, MOVIE, SPORTS, NEWS) that offer different picture and sound qualities. Choose the one that best suits the type of program that you want to watch.

Example: Select MOVIE mode for picture and sound that gives you the sense of being in a movie theater.

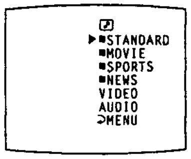

MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH-
POSITION
AUDIO
OFF
TV/VIDEO
1
2
3
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
MENU
RETURN
PICTURE
CH
VOL
VTR1·2·3
MDP
TV
CABLE BOX
TV/VTR
CODE SET
STANDARD
CH+
POWER
CH-
REC

(with video control cover open)

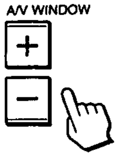
1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

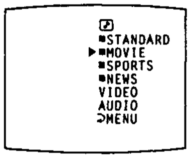

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press RETURN.
The program palette menu appears.

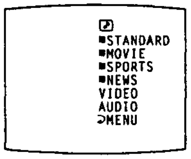

▶■STANDARD
■MOVIE
■SPORTS
■NEWS
VIDEO
AUDIO
⊃MENU

3 Press A/V WINDOW +/– until the cursor points to "MOVIE."




■STANDARD
▶■MOVIE
■SPORTS
■NEWS
VIDEO
AUDIO
⊃MENU

4 Press RETURN.
The "MOVIE" display turns green, indicating that MOVIE mode is selected.


■STANDARD
■MOVIE
■SPORTS
■NEWS
VIDEO
AUDIO
⊃MENU

To select a different mode
Repeat steps 3 – 4.

Selecting standard mode (without using the menus)

Follow these instructions to select standard mode without using the on-screen menus.

Press STANDARD.

When you select STANDARD mode
You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the Projection TV," pp. 42 – 50) are cancelled and the original factory settings are restored.

When you select MOVIE mode
You receive a finely detailed picture, and a theatrical audio effect.
To further adjust picture and sound qualities, follow the instructions on pp. 42 – 50.

When you select SPORTS mode
You receive a vivid, bright picture, and sound with a sports stadium effect.
To further adjust picture and sound qualities, follow the instructions on pp. 42 – 50.

When you select NEWS mode
Picture noise is reduced, and you receive clear voice reproduction.
To further adjust picture and sound qualities, follow the instructions on pp. 42 – 50.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

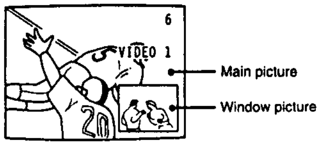
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

1-10. WATCHING TWO PICTURES AT ONCE (PINP)

You can watch both the main picture and a window picture simultaneously, using the Picture-in-Picture (PIP) function.

The projection TV is equipped with one-tuner PIP. To watch two TV channels simultaneously, you must first connect a VCR to the projection TV, which will enable you to watch a second TV channel through the VCR tuner. (See "Connecting Other Equipment," pp. 15 – 16.)


6
VIDEO 1
Main picture
Window picture

Picture-in-Picture special features
When watching the main picture and a window picture, you can:

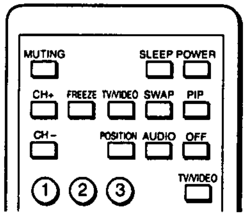
- Swap the main and window pictures (SWAP).
- Change the position of the window picture (POSITION).
- Display a still picture (FREEZE).
- Choose the sound from the main or window picture (AUDIO).

Notes

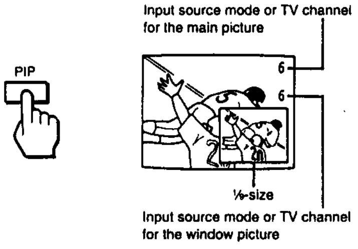
- The window picture sound is also output from the AUDIO (VAR) OUT jacks. The AUDIO OUT and MONITOR OUT jacks output the main picture sound only.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window picture, the display "BLOCKED" appears with the window picture. (See "Setting CHANNEL BLOCK," pp. 60 – 61.)

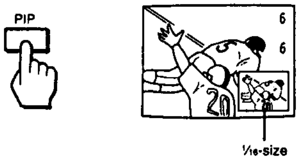
Displaying a window picture

Remote Commander


MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH–
POSITION
AUDIO
OFF
1
2
3
TV/VIDEO

Press PIP to display a window picture


Input source mode or TV channel for the main picture
PIP
6
6
⅑-size
Input source mode or TV channel for the window picture


PIP
6
6
1/16-size

A window picture appears in the last mode you watched. Each time you press PIP, a 1/9 or 1/16 size window picture appears alternately.

To turn PIP function off
Press OFF.
The window picture disappears.

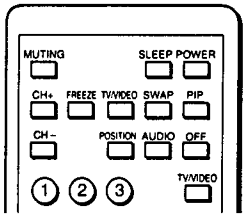
To receive the window picture sound
Press AUDIO.

The ♪ display appears for a few seconds, indicating that the window picture sound is being received.

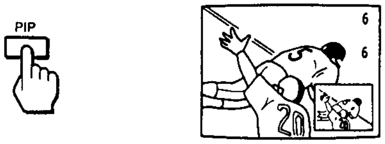
To restore the main picture sound
Press AUDIO again.

Changing the window picture input mode

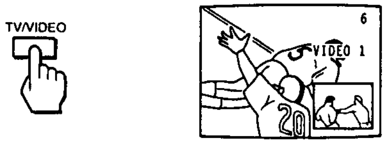
Remote Commander


MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH–
POSITION
AUDIO
OFF
1
2
3
TV/VIDEO

1 Press PIP to display a window picture.



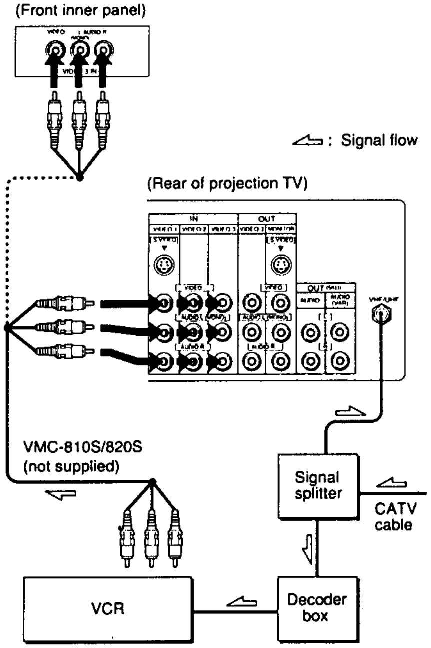
2 Press TV/VIDEO in the Picture-in-Picture control area to select the input mode.
Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.


TV/VIDEO
6
VIDEO 1

To change TV channels in the window picture
Press CH +/– in the PIP control area.

Displaying CATV input as a window picture

To use Picture-in-Picture with pay cable TV input, make the connections to your cable converter box as shown below.


(Front inner panel)
: Signal flow
(Rear of projection TV)
IN
OUT
VMC-810S/820S
(not supplied)
Signal splitter
CATV cable
VCR
Decoder box

After making the above connections, turn the cable connection on by following the steps on pp. 26 – 27; then continue with the steps below.

1–2 Follow steps 1 – 2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

3 Put your VCR on an inactive channel (channel 3 or 4).

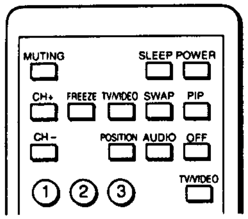
4 Change pay cable TV channels with the decoder box.

To control your cable converter box with the supplied Remote Commander
See p. 68.

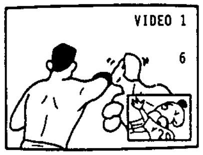
Changing the position of the window picture

Follow these instructions to change the position of the window picture on the screen.

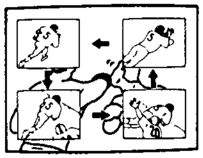
Remote Commander


MUTING
SLEEP POWER
CH+ FREEZE TV/VIDEO SWAP PIP
CH− POSITION AUDIO OFF
1 2 3
TV/VIDEO

1 Press PIP to display a window picture.



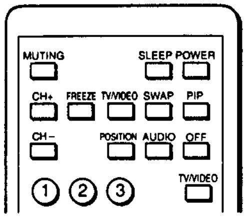
2 Press POSITION.
Each time you press POSITION, the window picture moves as illustrated.



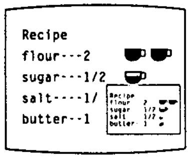
Displaying a still picture

Use the FREEZE function to display a still picture. This function is useful when you want to write down a recipe from a cooking program, a displayed address or phone number and so on.

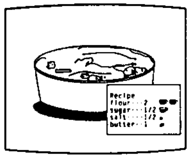
Remote Commander


MUTING
SLEEP POWER
CH+ FREEZE TV/VIDEO SWAP PIP
CH− POSITION AUDIO OFF
1 2 3
TV/VIDEO

1 Press PIP to display a window picture.


Recipe
flour---2
sugar---1/2
salt----1/
butter--1

2 Press FREEZE.
The window picture image remains still on the screen.

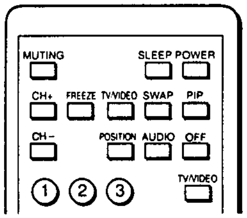


To restore the normal picture
Press FREEZE again.

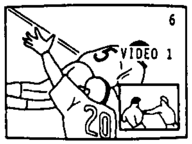
Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures.

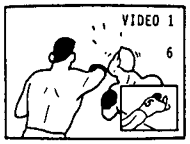
Remote Commander


MUTING
SLEEP POWER
CH+ FREEZE TV/VIDEO SWAP PIP
CH− POSITION AUDIO OFF
1 2 3
TV/VIDEO

1 Press PIP to display a window picture.



2 Press SWAP.
Each time you press SWAP, the images from the main and window pictures switch places.



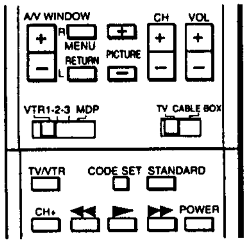
1-11. ADJUSTING THE PROJECTION TV

You can adjust the picture and sound for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the projection TV or on the Remote Commander to select the input mode, before making the adjustments. These adjustments are retained in memory even when you turn off the projection TV, but are cancelled after you change the adjustments, or select a picture and sound mode (pp. 36 – 37).

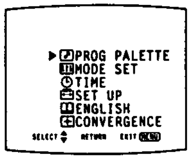
Adjusting the picture

Follow these instructions to adjust PICTURE, HUE, COLOR, BRIGHT (brightness) and SHARP (sharpness).

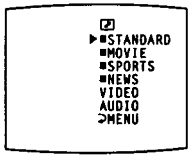
Remote Commander (with video control cover open)


A/V WINDOW
R
L
MENU
RETURN
PICTURE
CH
VOL
VTR1-2-3
MDP
TV CABLE BOX
TV/VTR
CODE SET
STANDARD
CH+
POWER

1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

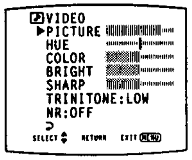

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

2 Press RETURN.
The program palette menu appears.


▶▪STANDARD
▪MOVIE
▪SPORTS
▪NEWS
VIDEO
AUDIO
⊃MENU

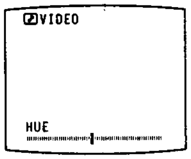
3 Press A/V WINDOW +/– until the cursor points to "VIDEO."

4 Press RETURN.
The VIDEO screen appears.


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT
RETURN
EXIT MENU

5 Press A/V WINDOW +/– until the cursor points to the item you want to adjust.

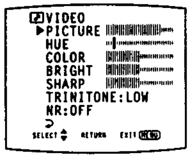
6 Press RETURN.
The adjustment screen appears.



7 Press A/V WINDOW +/– to make the adjustment.

Picture quality	Press A/V WINDOW –	Press A/V WINDOW +
PICTURE	For decreased picture contrast with soft color	For increased picture with vivid color
HUE	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

8 Press RETURN.
The adjustment is complete, and the VIDEO screen automatically reappears.


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT
RETURN
EXIT MENU

To adjust other items
Repeat steps 5 – 8.

To restore the factory settings for all the items
Select "STANDARD" on the program palette menu, and press RETURN;
or, press STANDARD on the Remote Commander.
All the items, including TRINITONE (p. 44) and NR (p. 45) return to their original factory settings.

To adjust picture contrast
You can also adjust picture contrast with the PICTURE +/– buttons on the Remote Commander.

1 Press + to increase picture contrast with vivid color.
Press – to decrease picture contrast with soft color.
The picture adjustment screen appears.

2 Press RETURN twice.
The adjustment is set, and the VIDEO screen automatically reappears.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

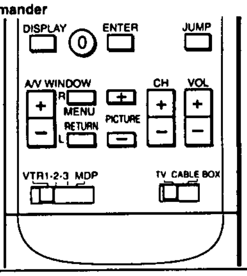
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

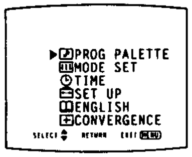
Setting the TRINITONE mode

Color picture tubes are usually manufactured with a fixed color temperature (tint) that determines the "warmth" (red tint) or "coolness" (blue tint) of the picture. Use the Sony Trinitone feature to adjust the picture color to your preference.

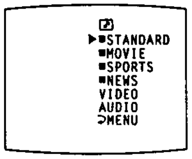
Remote Commander


DISPLAY
0
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1·2·3 MDP
TV CABLE BOX

1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

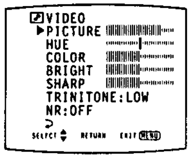

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT ⇕ RETURN EXIT MENU

2 Press RETURN.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
VIDEO
AUDIO
⊃MENU

3 Press A/V WINDOW +/– until the cursor points to "VIDEO."

4 Press RETURN.
The VIDEO screen appears.


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT ⇕ RETURN EXIT MENU

5 Press A/V WINDOW +/– until the cursor points to "TRINITONE."

6 Press RETURN.
The mode display turns red.

7 Press A/V WINDOW +/– to select "HIGH" or "LOW."

Select "HIGH" to make the picture cool (bluish).
Select "LOW" to make the picture warm (reddish).

8 Press RETURN.
The setting is complete.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

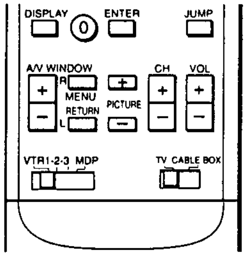
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

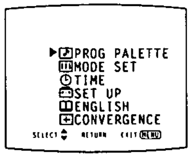
Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

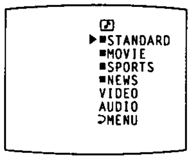
Remote Commander


DISPLAY
0
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1·2·3 MDP
TV CABLE BOX

1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT ⇕ RETURN EXIT MENU

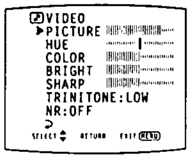
2 Press RETURN.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
VIDEO
AUDIO
⊃MENU

3 Press A/V WINDOW +/– until the cursor points to "VIDEO."

4 Press RETURN.
The VIDEO screen appears.

5 Press A/V WINDOW +/– until the cursor points to "NR."


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT ⇕ RETURN EXIT MENU

6 Press RETURN.
The mode display turns red.

7 Press A/V WINDOW +/– to select "ON" or "OFF."

Select "ON" to reduce picture noise.
Select "OFF" to restore the normal picture.

8 Press RETURN.
The setting is complete.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

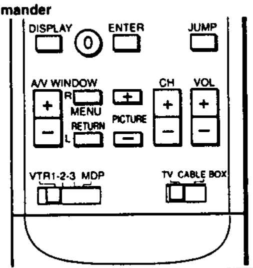
Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the projection TV. For instructions on connecting video equipment, see pp. 15 – 18.

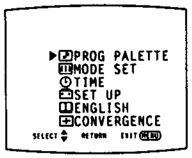
Note

If the projection TV is in TV, VIDEO 2 or VIDEO 3 mode, the "S-VIDEO" display is shaded and cannot be selected. Press TV/VIDEO on the projection TV or on the Remote Commander to change to VIDEO 1 mode.

Remote Commander

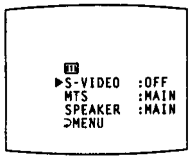

DISPLAY
ENTER
JUMP
A/V WINDOW
CH
VOL
R
MENU
RETURN
L
PICTURE
VTR1·2·3
MDP
TV CABLE BOX

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

2 Press A/V WINDOW +/– until the cursor points to "MODE SET."

3 Press RETURN.
The mode set menu appears, with the cursor pointing to "S-VIDEO."


▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
⊃MENU

4 Press RETURN.
The mode display turns red.

5 Press A/V WINDOW +/– to select "ON" or "OFF."

6 Press RETURN.
The setting is complete.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

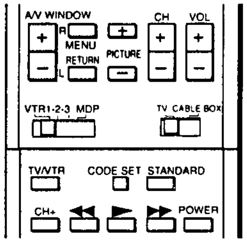
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

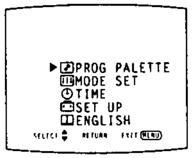
Adjusting the sound

Follow these instructions to adjust the TREBLE, BASS and BALANCE.

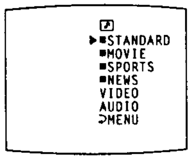
Remote Commander (with video control cover open)


A/V WINDOW
CH
VOL
R
MENU
RETURN
L
PICTURE
VTR1-2-3
MDP
TV CABLE BOX
TV/VTR
CODE SET
STANDARD
CH+
POWER

1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

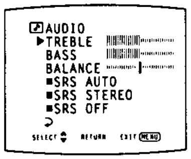

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
SELECT
RETURN
EXIT MENU

2 Press RETURN.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
VIDEO
AUDIO
⊃MENU

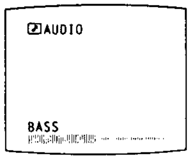
3 Press A/V WINDOW +/– until the cursor points to "AUDIO."

4 Press RETURN.
The AUDIO screen appears.


AUDIO
▶TREBLE
BASS
BALANCE
■SRS AUTO
■SRS STEREO
■SRS OFF
⊃
SELECT
RETURN
EXIT MENU

5 Press A/V WINDOW +/– until the cursor points to the item you want to adjust.

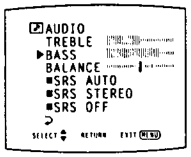
6 Press RETURN.
The adjustment screen appears.



7 Press A/V WINDOW +/– to make the adjustment.

Sound quality	Press A/V WINDOW –	Press A/V WINDOW +
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

8 Press RETURN.
The adjustment is complete, and the AUDIO screen automatically reappears.


AUDIO
TREBLE
▶BASS
BALANCE
■SRS AUTO
■SRS STEREO
■SRS OFF
⊃
SELECT
RETURN
EXIT MENU

To adjust other items
Repeat steps 5 – 9.

To restore the factory settings for all the items
Select "STANDARD" on the program palette menu, and press RETURN; or, press STANDARD on the Remote Commander.
All the items, including SRS mode (p. 48) return to their original factory settings.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

Selecting an SRS (Sound Retrieval System) mode

For lifelike sound reproduction, follow the instructions below to select the SRS mode you prefer.

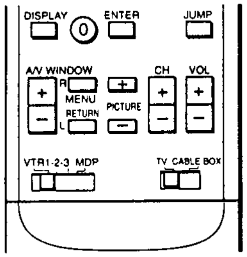
In SRS AUTO mode, SRS functions in both monaural and stereo modes.

Monaural sound programs will have a 'simulated stereo' effect.

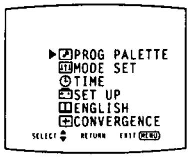
In SRS STEREO mode, SRS functions only when a stereo program is received.
The STEREO lamp on the TV lights up whenever a stereo broadcast is received.

Select SRS OFF mode to return to normal sound mode.

Remote Commander

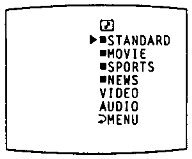


1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT ⬍  RETURN  EXIT MENU
```

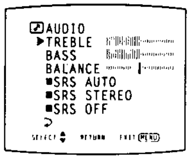
2 Press RETURN.
The program palette menu appears.



```
▶▪STANDARD
 ▪MOVIE
 ▪SPORTS
 ▪NEWS
 VIDEO
 AUDIO
 ⊃MENU
```

3 Press A/V WINDOW +/– until the cursor points to "AUDIO."

4 Press RETURN.
The AUDIO screen appears.



```
AUDIO
▶TREBLE
 BASS
 BALANCE
 ▪SRS AUTO
 ▪SRS STEREO
 ▪SRS OFF
 ⊃
SELECT ⬍  RETURN  EXIT MENU
```

5 Press A/V WINDOW +/– until the cursor points to the SRS mode you want.

6 Press RETURN.
The mode is selected.

To change the SRS mode
Repeat steps 5 – 6.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

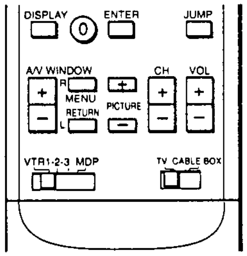
Select MAIN mode to listen to stereo sound.
The STEREO lamp on the projection TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

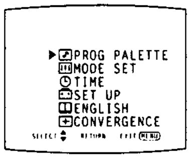
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

Note
If the projection TV is in video mode, the "MTS" display is shaded and cannot be selected.
Press TV/VIDEO on the projection TV or on the Remote Commander to change to TV mode.

Remote Commander



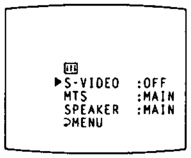
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT ⬍  RETURN  EXIT MENU
```

2 Press A/V WINDOW +/– until the cursor points to "MODE SET."

3 Press RETURN.
The mode set menu appears.



```
▶S-VIDEO  :OFF
 MTS      :MAIN
 SPEAKER  :MAIN
 ⊃MENU
```

4 Press A/V WINDOW +/– until the cursor points to "MTS."

5 Press RETURN.
The mode display turns red.

6 Press A/V WINDOW +/– to select the mode you want.
Each time you press A/V WINDOW +/–, "MAIN," "SAP" and "MONO" appear in sequence.

7 Press RETURN.
The mode is selected.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

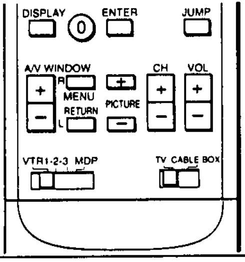
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

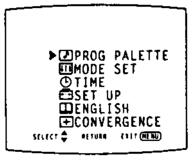
Setting SPEAKER — MAIN or CENTER

Follow these instructions to set SPEAKER to "CENTER" when you connect an audio system (p.19), and to "MAIN" when you want to listen to the sound from the projection TV speakers.

Remote Commander

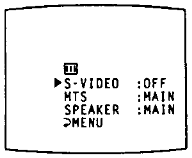

DISPLAY
0
ENTER
JUMP
A/V WINDOW
MENU
RETURN
PICTURE
CH
VOL
VTR1-2-3
MDP
TV CABLE BOX

1 Press MENU.
The main menu appears.


PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

2 Press A/V WINDOW +/– until the cursor points to "MODE SET."

3 Press RETURN.
The mode set menu appears.


S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN

4 Press A/V WINDOW +/– until the cursor points to "SPEAKER."

5 Press RETURN.
The mode display turns red.

6 Press A/V WINDOW +/– to select "MAIN" or "CENTER."

7 Press RETURN.
The setting is complete.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

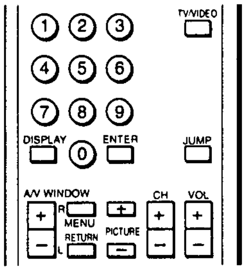
1-12. CUSTOMIZING THE SCREEN DISPLAY

Setting channel captions — CH CAPTION

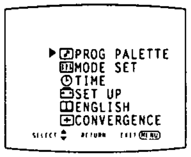
Follow these instructions to caption each channel number display with a name, for instance, the television station call letters. (You can set up to four letters or numbers).

Example: Caption channel 15 as "NBC."

Remote Commander

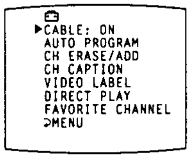

1
2
3
TV/VIDEO
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
MENU
RETURN
PICTURE
CH
VOL

1 Press MENU.
The main menu appears.


PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

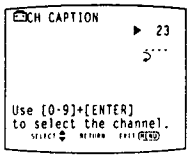
2 Press A/V WINDOW +/– until the cursor points to "SET UP."

3 Press RETURN.
The set up menu appears.

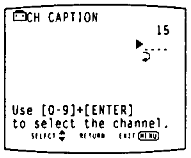

CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
MENU

4 Press A/V WINDOW +/– until the cursor points to "CH CAPTION."

5 Press RETURN.
The CH CAPTION screen appears.

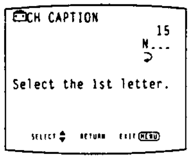

CH CAPTION
23
SELECT
RETURN
EXIT MENU
Use [0-9]+[ENTER]
to select the channel.

6 Press CH +/–, or press 1, 5 and ENTER to set channel "15."


CH CAPTION
15
SELECT
RETURN
EXIT MENU
Use [0-9]+[ENTER]
to select the channel.

7 Press RETURN.
The first caption space turns red.

8 Press A/V WINDOW +/– to select "N."
Each time you press A/V WINDOW +/–, "0" – "9," "A" – "Z," "&," "/," "-" and "_" (blank space) appear in sequence.


CH CAPTION
15
N...
SELECT
RETURN
EXIT MENU
Select the 1st letter.

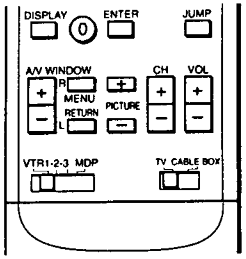
9 Press RETURN.
The second caption space turns red.

(Continued)

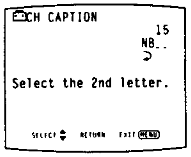
Setting channel captions – CH CAPTION

(Cont'd. from prev. page)

Remote Commander


DISPLAY
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1·2·3 MDP
TV CABLE BOX

10 Press A/V WINDOW +/– to select "B."

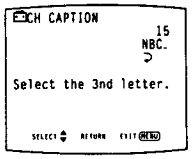


```
CH CAPTION
                15
               NB_ _
                ⊃
Select the 2nd letter.
```

SELECT ⇕ RETURN EXIT MENU

11 Press RETURN.
The third caption space turns red.

12 Press A/V WINDOW +/– to select "C."

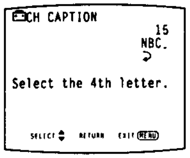


```
CH CAPTION
                15
               NBC_
                ⊃
Select the 3nd letter.
```

SELECT ⇕ RETURN EXIT MENU

13 Press RETURN.
The fourth caption space turns red.

14 Press A/V WINDOW +/– to select a blank space.



```
CH CAPTION
                15
               NBC_
                ⊃
Select the 4th letter.
```

SELECT ⇕ RETURN EXIT MENU

15 Press RETURN.
The setting is complete.
When you select or display the channel number, the channel caption also appears.

To caption more channels
Repeat steps 6 – 15.

To erase unnecessary captions
Display the CH CAPTION screen, select the channel with the caption you want to erase, and select blank spaces for the channel caption; then press RETURN.
The caption for that channel is erased.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to
" ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

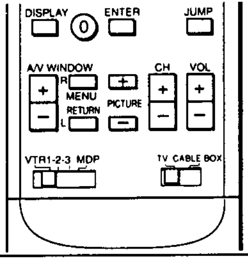
Note
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

Setting VIDEO LABEL

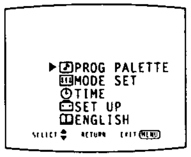
Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

Example: Label VIDEO 1 IN as "VHS."

Remote Commander


DISPLAY
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1·2·3 MDP
TV CABLE BOX

1 Press MENU.
The main menu appears.

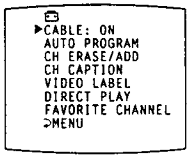


```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
```

SELECT ⇕ RETURN EXIT MENU

2 Press A/V WINDOW +/– until the cursor points to "SET UP."

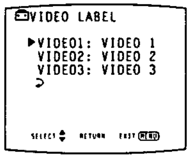
3 Press RETURN.
The set up menu appears.



```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 FAVORITE CHANNEL
 ⊃MENU
```

4 Press A/V WINDOW +/– until the cursor points to "VIDEO LABEL."

5 Press RETURN.
The VIDEO LABEL screen appears.



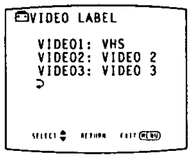
```
VIDEO LABEL
 ▶VIDEO1: VIDEO 1
  VIDEO2: VIDEO 2
  VIDEO3: VIDEO 3
  ⊃
```

SELECT ⇕ RETURN EXIT MENU

6 Press A/V WINDOW +/– until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1.")

7 Press RETURN.
The label display turns red.

8 Press A/V WINDOW +/– to select "VHS."



```
VIDEO LABEL
  VIDEO1: VHS
  VIDEO2: VIDEO 2
  VIDEO3: VIDEO 3
  ⊃
```

SELECT ⇕ RETURN EXIT MENU

Each time you press A/V WINDOW +/–, the label changes:

VIDEO 1
VIDEO 1 → BETA → 8mm → VHS → LD → S-VIDEO

VIDEO 2
VIDEO 2 → BETA → 8mm → VHS → LD

VIDEO 3
VIDEO 3 → BETA → 8mm → VHS → LD

9 Press RETURN.
The setting is complete.
When you select or display the video mode, the video label appears.

To label other input modes
Repeat steps 6 – 9.

To change a label
Same as above.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to
" ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

1-13. USING TIMER-ACTIVATED FUNCTIONS

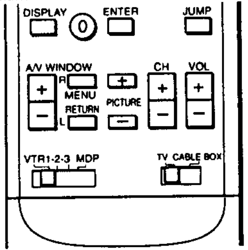
Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season, before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

When setting DAYLIGHT SAVING:

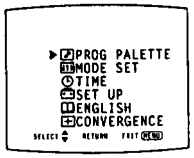
- **After the first Sunday in April (spring daylight savings)**
  Set to "YES" before setting the current time.
  Then, on the last Sunday in October (fall daylight savings), set to "NO."
  All the time-related settings automatically move one hour back.
- **After the last Sunday in October (fall daylight savings)**
  Set to "NO" before setting the current time.
  Then, on the first Sunday in April (spring daylight savings), set to "YES."
  All the time-related settings automatically move one hour ahead.

Remote Commander


DISPLAY
ENTER
JUMP
0
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1-2-3 MDP
TV CABLE BOX

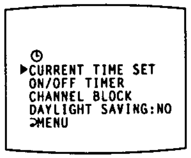
Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT ⇕ RETURN EXIT MENU

2 Press A/V WINDOW +/– until the cursor points to "TIME."

3 Press RETURN.
The time menu appears.


▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU

4 Press A/V WINDOW +/– until the cursor points to "DAYLIGHT SAVING."

5 Press RETURN.
The mode display turns red.

6 Press A/V WINDOW +/– to select "YES" or "NO."

7 Press RETURN.
The setting is complete.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

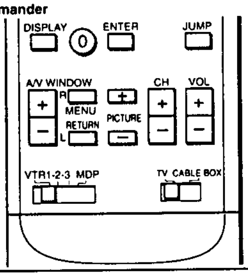
To return to the normal screen.
Press MENU.

Setting the clock — CURRENT TIME SET

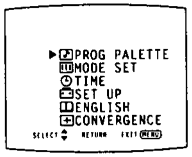
Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

Example: Set the time to 3:15 PM, Monday.

Remote Commander

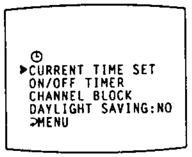

DISPLAY
ENTER
JUMP
0
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1-2-3 MDP
TV CABLE BOX

1 Press MENU.
The main menu appears.

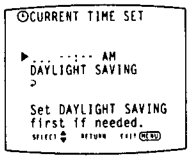

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT ⇕ RETURN EXIT MENU

2 Press A/V WINDOW +/– until the cursor points to "TIME."

3 Press RETURN.
The time menu appears, and the cursor points to "CURRENT TIME SET."


▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU

4 Press RETURN again.
The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.


CURRENT TIME SET
▶... --:-- AM
DAYLIGHT SAVING
SELECT ⇕ RETURN EXIT MENU

Set DAYLIGHT SAVING first if needed.

If you do not need to set DAYLIGHT SAVING, press RETURN and continue from step 5.

To set daylight saving

a Press A/V WINDOW +/– until the cursor points to "DAYLIGHT SAVING."

b Press RETURN.
The time menu appears, and the cursor points to "DAYLIGHT SAVING."

c Press RETURN.

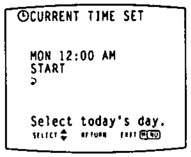
d Press A/V WINDOW +/– to select "YES" or "NO."

e Press RETURN.
The setting is complete.

To set the time, press A/V WINDOW +/– until the cursor points to "CURRENT TIME SET"; press RETURN, then continue from step 5.

5 Press RETURN.
The CURRENT TIME SET screen appears, and the "SUN" display appears (red).

6 Press A/V WINDOW +/– to select "MON."
Each time you press A/V WINDOW +/–, the day changes consecutively.


CURRENT TIME SET
MON 12:00 AM
START
SELECT ⇕ RETURN EXIT MENU

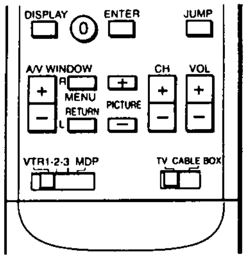
Select today's day.

(Continued)

Setting the clock — CURRENT TIME SET

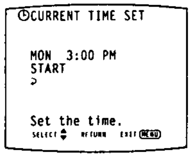
(Cont'd. from prev. page)

Remote Commander



7 Press RETURN.
The hour and am/pm displays turn red.

8 Press A/V WINDOW +/– to set "3:00PM."
Each time you press A/V WINDOW +/–, the hour changes in sequence beginning with "12:00AM."



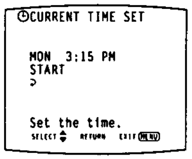
```
ⓘCURRENT TIME SET

MON  3:00 PM
START
⊃

Set the time.
SELECT ⬍  RETURN  EXIT MENU
```

9 Press RETURN.
The minute display turns red.

10 Press A/V WINDOW +/– to select "15" (minutes).
Each time you press A/V WINDOW +/–, the minutes change in sequence.



```
ⓘCURRENT TIME SET

MON  3:15 PM
START
⊃

Set the time.
SELECT ⬍  RETURN  EXIT MENU
```

11 Press RETURN.
The cursor points to "START."

12 Check the actual time, and press RETURN to start the clock.
The setting is complete.

To reset the time
Display the CURRENT TIME SET screen and repeat steps 5 – 12.

To display the current time
Press DISPLAY.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

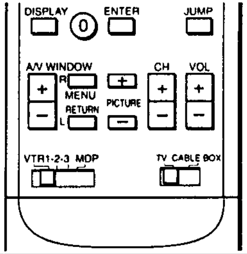
To return to the normal screen.
Press MENU.

Setting the ON/OFF TIMER

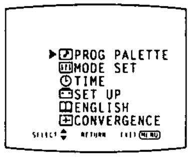
Follow these instructions to make the program of your choice appear on the screen at a specified time.

Example: Set the timer to turn on the projection TV every Monday through Friday at 1:30 AM for 3 hours, on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander



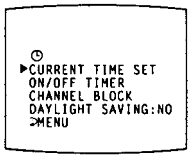
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT ⬍  RETURN  EXIT MENU
```

2 Press A/V WINDOW +/– until the cursor points to . "TIME."

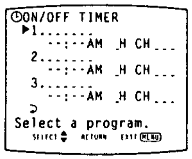
3 Press RETURN.
The time menu appears.



```
ⓘ
▶CURRENT TIME SET
 ON/OFF TIMER
 CHANNEL BLOCK
 DAYLIGHT SAVING:NO
 ⊃MENU
```

4 Press A/V WINDOW +/– until the cursor points to "ON/OFF TIMER."

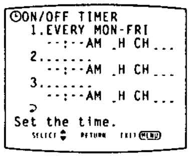
5 Press RETURN.
The ON/OFF TIMER screen appears, and the cursor points to "1."



```
ⓘON/OFF TIMER
 ▶1.......
      --:--AM _H CH___
  2.......
      --:--AM _H CH___
  3.......
      --:--AM _H CH___
  ⊃
Select a program.
SELECT ⬍  RETURN  EXIT MENU
```

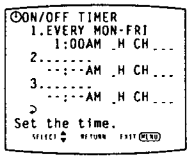
6 To set program 1, press RETURN.
(To set program 2 or 3, press A/V WINDOW +/– until the cursor points to that program; then press RETURN.)
The day input space turns red.

7 Press A/V WINDOW +/– to select "EVERY MON-FRI"; then press RETURN.
Each time you press A/V WINDOW +/–, the days of the week change as shown in Fig. 1 (p. 59).



```
ⓘON/OFF TIMER
   1.EVERY MON-FRI
      --:--AM _H CH___
  2.......
      --:--AM _H CH___
  3.......
      --:--AM _H CH___
  ⊃
Set the time.
SELECT ⬍  RETURN  EXIT MENU
```

8 Press A/V WINDOW +/– to select "1:00AM"; then press RETURN.
Each time you press A/V WINDOW +/–, the hour changes in sequence.

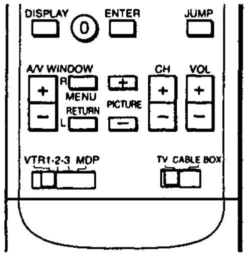


```
ⓘON/OFF TIMER
   1.EVERY MON-FRI
       1:00AM _H CH___
  2.......
      --:--AM _H CH___
  3.......
      --:--AM _H CH___
  ⊃
Set the time.
SELECT ⬍  RETURN  EXIT MENU
```

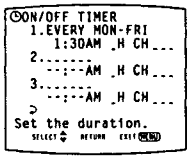
(Continued)

Setting the ON-OFF TIMER *(Cont'd from prev. page)*

Remote Commander

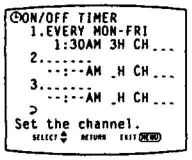

DISPLAY
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1·2·3 MDP
TV CABLE BOX

9 Press A/V WINDOW +/– to select "30" (minutes); then press RETURN.
Each time you press A/V WINDOW +/–, the minutes change in sequence.



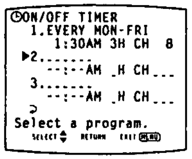
```
⊙ON/OFF TIMER
  1.EVERY MON-FRI
     1:30AM _H CH___
  2.------
     --:--AM _H CH___
  3.------
     --:--AM _H CH___
  ⊃
 Set the duration.
   SELECT⇕  RETURN  EXIT MENU
```

10 Press A/V WINDOW +/– to select "3" (hour duration); then press RETURN.
Each time you press A/V WINDOW +/–, the duration changes from "1" – "6" in sequence.



```
⊙ON/OFF TIMER
  1.EVERY MON-FRI
     1:30AM 3H CH___
  2.------
     --:--AM _H CH___
  3.------
     --:--AM _H CH___
  ⊃
 Set the channel.
   SELECT⇕  RETURN  EXIT MENU
```

11 Press A/V WINDOW +/– to select "8" (channel); then press RETURN.
The TIMER lamp lights, indicating that the setting is complete.
Each time you press A/V WINDOW +/–, the channel number changes from 1 – 125 in sequence.



```
⊙ON/OFF TIMER
  1.EVERY MON-FRI
     1:30AM 3H CH  8
 ▶2.------
     --:--AM _H CH___
  3.------
     --:--AM _H CH___
  ⊃
 Select a program.
   SELECT⇕  RETURN  EXIT MENU
```

The display "TIMER WILL BE OFF" appears on the screen one minute before the timer duration ends.

To set program 2 or 3.
Press RETURN and repeat steps 6 – 11.

To erase an ON/OFF TIMER setting
Display the ON/OFF TIMER screen, select the setting you want to erase, and select a blank space for the day.
The ON/OFF TIMER setting is erased.

To enter a new ON/OFF TIMER setting
Display the ON/OFF TIMER screen and repeat steps 6 – 11.

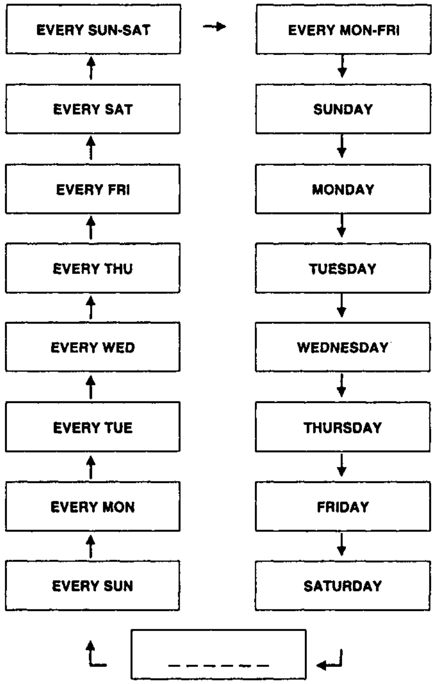
To return to the previous menu
Press A/V WINDOW +/– until the cursor points to
" ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

Note
If you unplug the projection TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time; then set the timer.

Fig. 1
Selecting the day(s) of the week
When you press A/V WINDOW +, the days of the week appear in the following order:

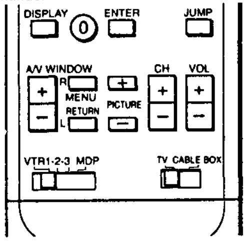

EVERY SUN-SAT
EVERY MON-FRI
EVERY SAT
SUNDAY
EVERY FRI
MONDAY
EVERY THU
TUESDAY
EVERY WED
WEDNESDAY
EVERY TUE
THURSDAY
EVERY MON
FRIDAY
EVERY SUN
SATURDAY

Setting CHANNEL BLOCK

Follow these instructions to prevent a channel from appearing on the screen during the time that you specify. You can use this function to prevent children from watching unsuitable programs.

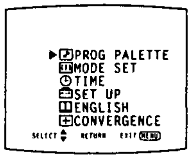
Example: Set CHANNEL BLOCK every Saturday at 4:30 PM for 1 hour, on Channel 12.

Remote Commander


DISPLAY
0
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1·2·3 MDP
TV CABLE BOX

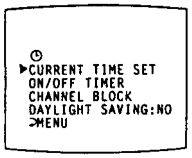
Note
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

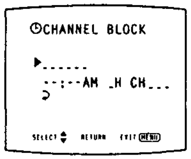
2 Press A/V WINDOW +/– until the cursor points to "TIME."

3 Press RETURN.
The time menu appears.

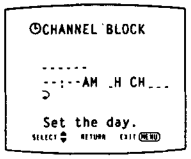

▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU

4 Press A/V WINDOW +/– until the cursor points to "CHANNEL BLOCK."

5 Press RETURN.
The CHANNEL BLOCK screen appears, and the cursor points to the day input space.


CHANNEL BLOCK
▶------
--:--AM _H CH___
SELECT RETURN EXIT MENU

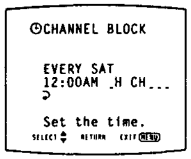
6 Press RETURN.
The day input space turns red.


CHANNEL BLOCK

--:--AM _H CH___
SELECT RETURN EXIT MENU

Set the day.

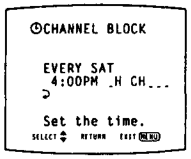
7 Press A/V WINDOW +/– to select "EVERY SAT"; then press RETURN.
Each time you press A/V WINDOW +/–, the days of the week change as shown in Fig. 1 (p. 59).


CHANNEL BLOCK
SELECT RETURN EXIT MENU

EVERY SAT
12:00AM _H CH___

Set the time.

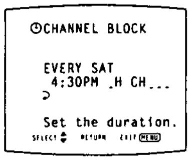
8 Press A/V WINDOW +/– to select "4:00PM"; then press RETURN.
Each time you press A/V WINDOW +/–, the hour changes in sequence.


CHANNEL BLOCK
SELECT RETURN EXIT MENU

EVERY SAT
4:00PM _H CH___

Set the time.

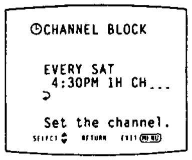
9 Press A/V WINDOW +/– to select ":30" (minutes); then press RETURN.
Each time you press A/V WINDOW +/–, the minutes change in sequence.


CHANNEL BLOCK
SELECT RETURN EXIT MENU

EVERY SAT
4:30PM _H CH___

Set the duration.

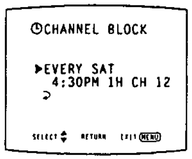
10 Press A/V WINDOW +/– to select "1" (hour duration); then press RETURN.
Each time you press A/V WINDOW +/–, the duration changes from "1" – "6" in sequence.


CHANNEL BLOCK
SELECT RETURN EXIT MENU

EVERY SAT
4:30PM 1H CH___

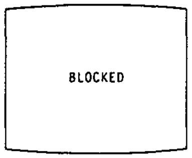
Set the channel.

11 Press A/V WINDOW +/– to select "12" (channel); then press RETURN.
The setting is complete.
Each time you press A/V WINDOW +/–, the channel number changes from "1" – "125" in sequence.


CHANNEL BLOCK
SELECT RETURN EXIT MENU

▶EVERY SAT
4:30PM 1H CH 12

At the specified time, "BLOCKED" appears in red on the screen, and the picture of the specified channel is blocked and the sound is muted.



To erase a CHANNEL BLOCK setting
Display the CHANNEL BLOCK screen and select a blank space for the day.
The CHANNEL BLOCK setting is erased.

To enter a new CHANNEL BLOCK setting
Display the CHANNEL BLOCK screen and repeat steps 4 – 10. (You can only set one CHANNEL BLOCK at a time.)

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

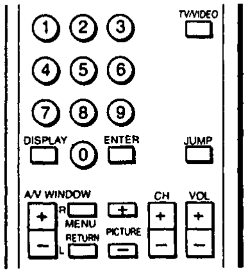
To return to the normal screen.
Press MENU.

Note
If the ON/OFF TIMER is set for an overlapping time (pp. 57 – 59), the later time setting takes precedence. For example, if CHANNEL BLOCK is set for 2:00 PM and ON/OFF TIMER is set for 3:00 PM, ON/OFF TIMER will take effect at 3:00 PM.

1-14. SETTING FAVORITE CHANNEL

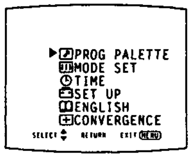
By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by pressing RETURN.

Remote Commander


TV/VIDEO
1
2
3
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
CH
VOL
R
MENU
RETURN
PICTURE
L

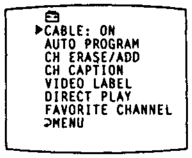
Follow these instructions to set the channels.

1 Press MENU.
The main menu appears.


PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT
RETURN
EXIT MENU

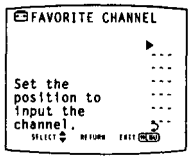
2 Press A/V WINDOW +/– until the cursor points to "SET UP."

3 Press RETURN.
The set up menu appears.


CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
MENU

4 Press A/V WINDOW +/– until the cursor points to "FAVORITE CHANNEL."

5 Press RETURN.
The FAVORITE CHANNEL screen appears, and the cursor points to the first channel position.

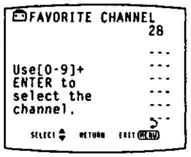

FAVORITE CHANNEL

SELECT
RETURN
EXIT MENU

Set the position to input the channel.

6 Press A/V WINDOW +/– to select the channel position; then press RETURN.

7 Press 0 – 9 and ENTER to set the channel number.


FAVORITE CHANNEL
28

SELECT
RETURN
EXIT MENU

Use[0-9]+ ENTER to select the channel.

8 Press RETURN.
The setting is complete.

To set other channels
Repeat steps 6 – 8.

To erase a favorite channel setting
Press A/V WINDOW +/– until the cursor points to the channel number you want to erase; then press 0 and ENTER.

To reset a favorite channel setting
Display the FAVORITE CHANNEL screen and repeat steps 6 – 8.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

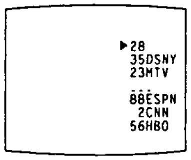
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

Selecting a favorite channel

After setting the channels, follow these instructions to select the channel you want to watch.

1 Press RETURN.
The FAVORITE CHANNEL display appears.

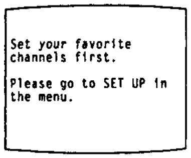

28
35DSNY
23MTV

88ESPN
2CNN
56HBO

Note
If you have set channel captions (pp. 51 – 52), the captions appear with the channel numbers.

2 Press A/V WINDOW +/– to select the channel you want to watch; then press RETURN.
The channel is selected.

If you press RETURN on the Remote Commander before setting FAVORITE CHANNEL, this screen appears.



Set your favorite channels first.

Please go to SET UP in the menu.

Follow steps 1 – 8 to set your favorite channels, and then make the selection.

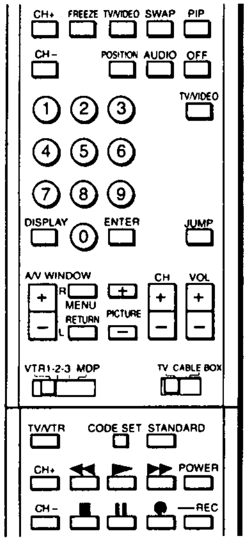
1-15. USING THE PRE-PROGRAMMED REMOTE COMMANDER

You can operate other video equipment (such as VCRs, video disc players and cable boxes) that have an infrared remote detector with this supplied Remote Commander.

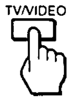
Operating Sony video equipment

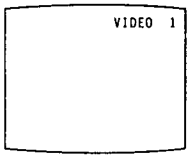
Follow these instructions to operate Sony video cassette recorders (Beta, 8 mm and VHS) and video disc players (including multi-disc players).

Remote Commander
(with video control cover open)



1. Press TV/VIDEO to select the input mode of your connected equipment (VIDEO 1, VIDEO 2 or VIDEO 3).





You can skip this step and go directly to video mode with the VTR1-2-3 MDP selector, by using the DIRECT PLAY function (pp. 69 – 70).

2. Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.

Fig. 2: Video equipment settings

If you want to operate a:	set to:
Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

3. Use the video operating buttons to control the connected equipment.

Fig. 3: Operating a VCR (VTR1, 2, 3)	
To turn on or off	Press POWER.
To change channels (when watching TV programs through the VCR's tuner)	Press CH +/–.
To record	Press ● and REC simultaneously.
To play	Press ►.
To stop	Press ■.
To fast forward	Press ►►.
To rewind the tape	Press ◄◄.
To pause	Press ❚❚. *To resume normal playback, press again.*
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. *To resume normal playback, release the button.*
To change input mode	Press TV/VTR.

Fig. 4: Operating a Video Disc Player (MDP)	
To turn on or off	Press POWER.
To play	Press ►.
To stop	Press ■.
To pause	Press ❚❚. *To resume normal playback, press again.* **Note** This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the projection TV goes off (standby mode) if you press ❚❚.
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. *To resume normal playback, release the button.*

Notes

- If the video equipment does not have a certain function, the corresponding button on this Remote Commander will not operate.
- If you set another manufacturer's code to a VTR1-2-3 MDP selector position (pp. 66 – 67), you must also set the Sony code to operate Sony equipment.

Caution

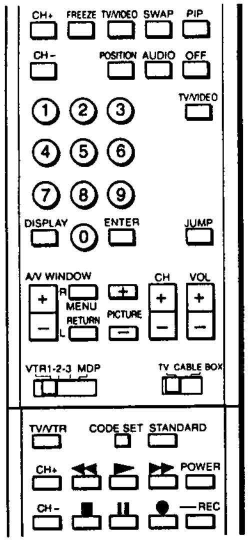
When you replace the batteries, do so within approximately 30 minutes. Otherwise Sony equipment settings and the settings you made under the Pre-Programmed function (pp. 66 – 68) may be erased.

Operating non-Sony or Sony video equipment

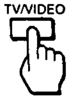
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pre-programmed Remote Commander.

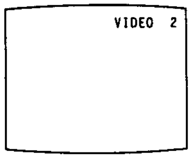
Example: Operate an RCA video cassette recorder connected to the VIDEO 2 IN jacks.

Remote Commander (with video control cover open)



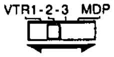
1 Press TV/VIDEO to select VIDEO 2.





You can skip this step and go directly to video mode with the VTR1-2-3 MDP selector, by using the DIRECT PLAY function (pp. 69 – 70).

2 Set the VTR1-2-3 MDP selector to VTR2.

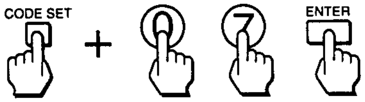


Note
You can use the VTR1-2-3 settings, but not MDP.*
By using these settings, you can use the Remote Commander to operate up to three pieces of equipment.

To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony video equipment.

- * Set the selector to MDP only to use your Sony multi-disc player (pp. 64 – 65).

3 While pressing CODE SET, press 0, 7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5, 6 and 7 on p. 67.)



4 Use the video operating buttons to operate the connected equipment. (see Fig. 3 on p. 64 and Fig. 4 on p. 65.)

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 6: MDP manufacturer code numbers

MANUFACTURER	CODE
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
8 mm VCR	02
VHS VCR	03
Video disc player	04

Note
In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

For your convenience
Write the manufacturer name and code number for your equipment onto one of the supplied self-adhesive labels and affix the label to the Remote Commander for easy reference.

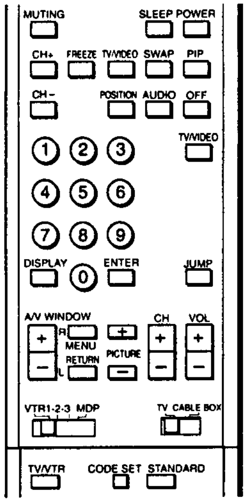
	BRAND	CODE
1		
2		
3		

Operating a cable converter box

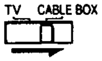
Follow these instructions to set the manufacturer's code, which will enable you to operate a connected cable converter box with the pre-programmed Remote Commander.

Example: Operate a connected Zenith cable converter box.

**Remote Commander
(with video control cover open)**


MUTING
SLEEP
POWER
CH+
FREEZE
TV/VIDEO
SWAP
PIP
CH–
POSITION
AUDIO
OFF
TV/VIDEO
1
2
3
4
5
6
7
8
9
DISPLAY
0
ENTER
JUMP
A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1-2-3 MDP
TV CABLE BOX
TV/VTR
CODE SET
STANDARD

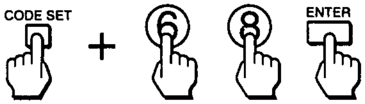
1 Set the TV/CABLE BOX selector to CABLE BOX.


TV
CABLE BOX

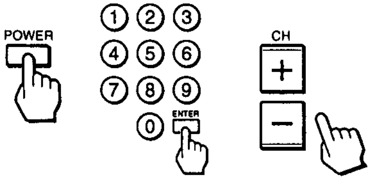
Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this Remote Commander and you may not be able to operate your cable converter box with the supplied Remote Commander. In this case, use the equipment's own remote control unit.

2 While pressing CODE SET, press 6 and 8 (Zenith's code number — see Fig. 8) and ENTER.


CODE SET
+
6
8
ENTER

3 Use the projection TV control buttons (POWER, 0 – 9, ENTER and CH +/–) to operate the cable converter box.


POWER
1
2
3
4
5
6
7
8
9
0
ENTER
CH
+
–

To return to the normal screen
Set the TV/CABLE BOX selector to TV; then use the projection TV control buttons to control the projection TV.

For more details on operating the cable box
Refer to the operating instructions that come with the cable box.

Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERROLD	60, 61, 62, 63, 64, 65
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

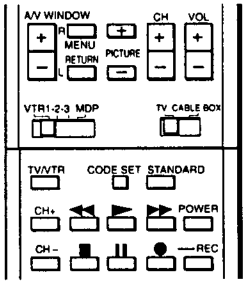
Selecting a VCR mode directly — DIRECT PLAY

Follow these instructions to switch from TV to VCR mode by simply pressing the ► (playback) button on the supplied Remote Commander.

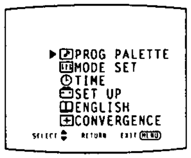
Example: Connect your VCR to the VIDEO 2 IN jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press ►, the input mode changes to the VCR connected to the VIDEO 2 IN jacks.

After completing the steps below, the VTR selector position is retained in the projection TV's memory.

Remote Commander (with video control cover open)


A/V WINDOW
R
MENU
RETURN
L
PICTURE
CH
VOL
VTR1-2-3 MDP
TV CABLE BOX
TV/VTR
CODE SET
STANDARD
CH+
POWER
CH–
REC

1 Press MENU.
The main menu appears.

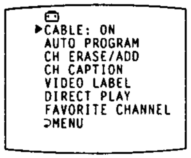


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE

SELECT
RETURN
EXIT MENU

2 Press A/V WINDOW +/– until the cursor points to "SET UP."

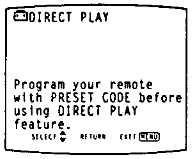
3 Press RETURN.
The set up menu appears.



▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
FAVORITE CHANNEL
MENU

4 Press A/V WINDOW +/– until the cursor points to "DIRECT PLAY."

5 Press RETURN.
A message screen appears.



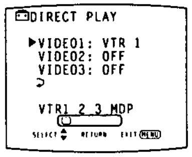
DIRECT PLAY

Program your remote with PRESET CODE before using DIRECT PLAY feature.

SELECT
RETURN
EXIT MENU

Note
This screen reminds you to set the manufacturer's code, if you have not already done so (pp. 66 – 67).

6 Press RETURN again.
The DIRECT PLAY screen appears.



DIRECT PLAY

▶VIDEO1: VTR 1
VIDEO2: OFF
VIDEO3: OFF

VTR1 2 3 MDP

SELECT
RETURN
EXIT MENU

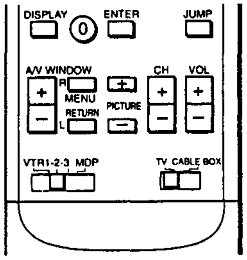
7 Press A/V WINDOW +/– until the cursor points to the video input mode. (When the video equipment is connected to VIDEO 1 IN, select "VIDEO1.")

8 Press RETURN.
The mode display turns red.

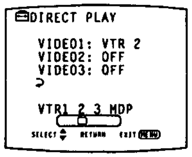
(Continued)

Selecting a VCR mode directly – DIRECT PLAY
(Cont'd. from prev. page)

Remote Commander



9 Press A/V WINDOW +/– to select the VTR selector mode you have set on the Remote Commander. (When the VTR1-2-3 MDP selector is set to VTR2, select "VTR 2.")
Each time you press A/V WINDOW +/–, "VTR 1," "VTR 2," "VTR 3," "MDP" and "OFF" appear in sequence.


```
DIRECT PLAY

VIDEO1: VTR 2
VIDEO2: OFF
VIDEO3: OFF
⊃

VTR1 2 3 MDP
```

10 Press RETURN.
The direct play setting is complete.

To set direct play for other connected video equipment
Repeat steps 7 – 10.

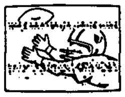
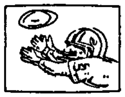
To return to the previous menu
Press A/V WINDOW +/– until the cursor points to "⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

1-16. TROUBLESHOOTING

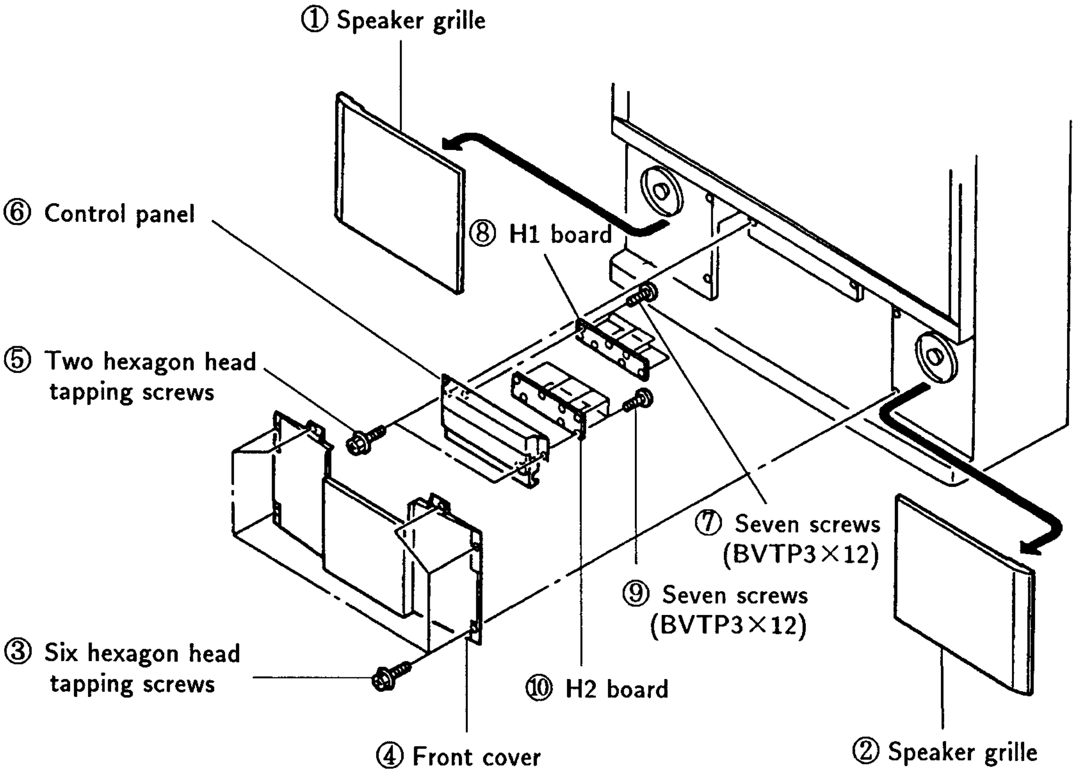
Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, contact your nearest service facility.

Symptom	Possible causes and remedies
No picture (screen not lit), no sound	• Make sure POWER is switched on. • Check the power cord connection. • Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly. • Make sure that the TV/CABLE BOX selector is set to TV.
Poor or no picture (screen not lit), good sound	• Adjust the picture using the VIDEO screen (pp. 42 – 45). • Check the antenna/cable connections. • Adjust the color registration (pp. 24 – 25).
Good picture, no sound	• Press VOLUME + on the projection TV or VOL + on the Remote Commander. • Press MUTING on the Remote Commander. • Check the MTS setting (p. 49). • Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly. • Make sure SPEAKER is set correctly (p. 50).
No color for color programs	• Check the HUE and COLOR settings (pp. 42 – 43).
Snow and noise only	• Check that it is an active or correct channel. • Check the cable setting. • Check antenna/cable connections.
 Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting a highly directional outdoor antenna or a CATV cable may improve the picture.
Remote control does not operate	• Check the battery in the Remote Commander.
No picture and/or sound for the connected equipment	• Check that the TV/VIDEO button is set correctly. • Check that the connections are properly made. • Check that the power of the connected equipment is turned on. • Check that the connected equipment is set correctly.
Try another channel. It could be station trouble.	

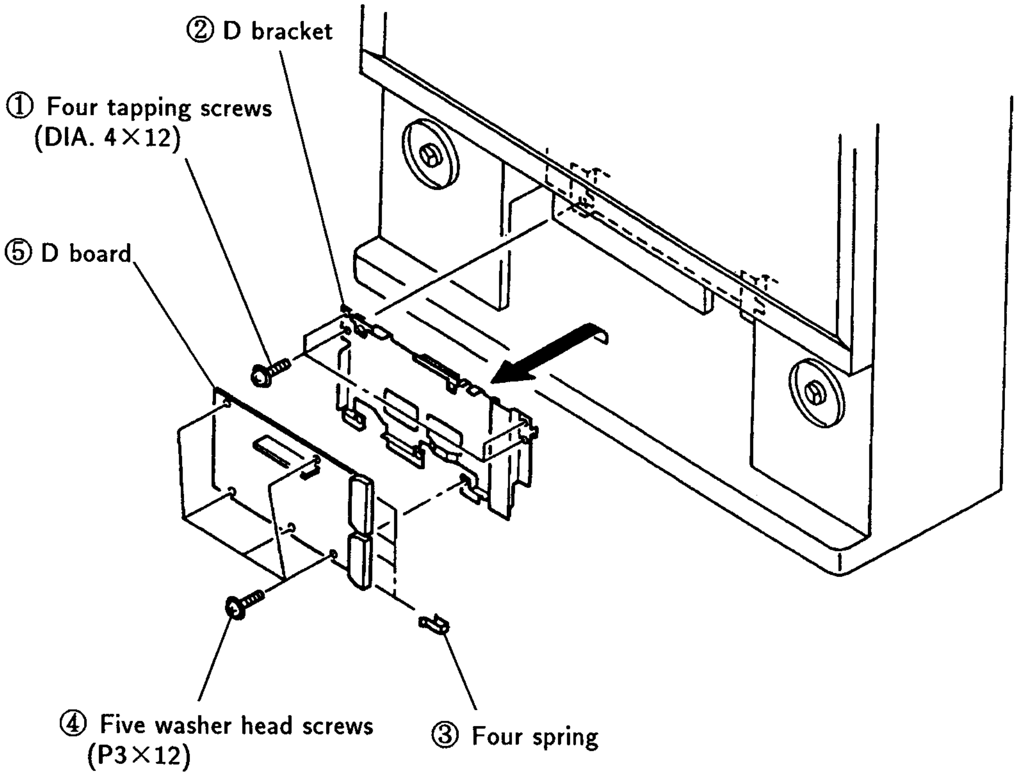
SECTION 2

DISASSEMBLY

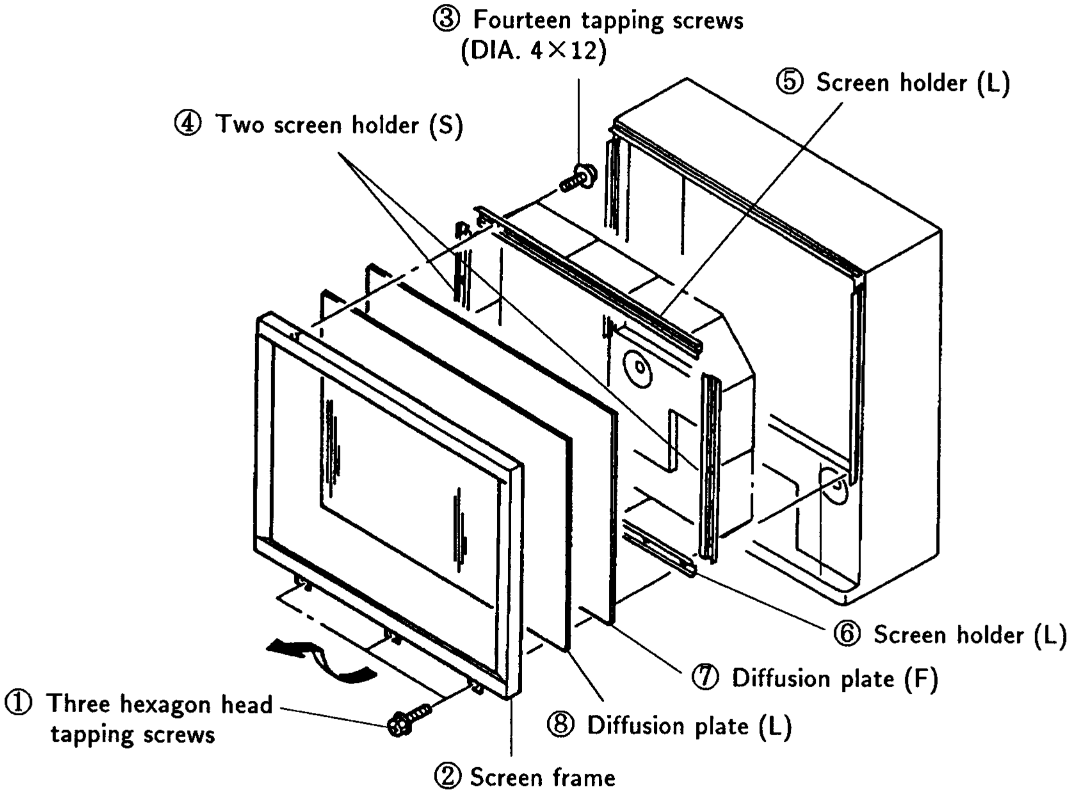
2-1. H1 AND H2 BOARDS REMOVAL


① Speaker grille
⑥ Control panel
⑧ H1 board
⑤ Two hexagon head tapping screws
⑦ Seven screws (BVTP3×12)
⑨ Seven screws (BVTP3×12)
③ Six hexagon head tapping screws
⑩ H2 board
④ Front cover
② Speaker grille

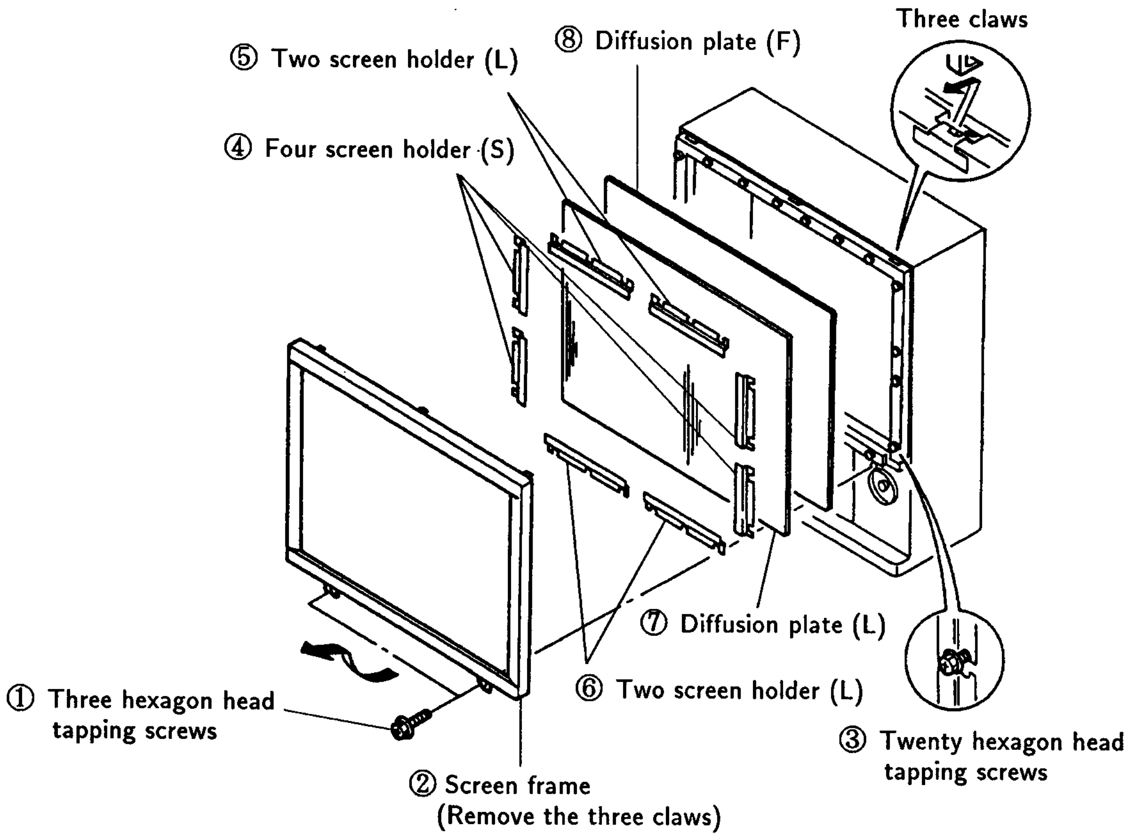
2-2. D BOARD REMOVAL


② D bracket
① Four tapping screws (DIA. 4×12)
⑤ D board
④ Five washer head screws (P3×12)
③ Four spring

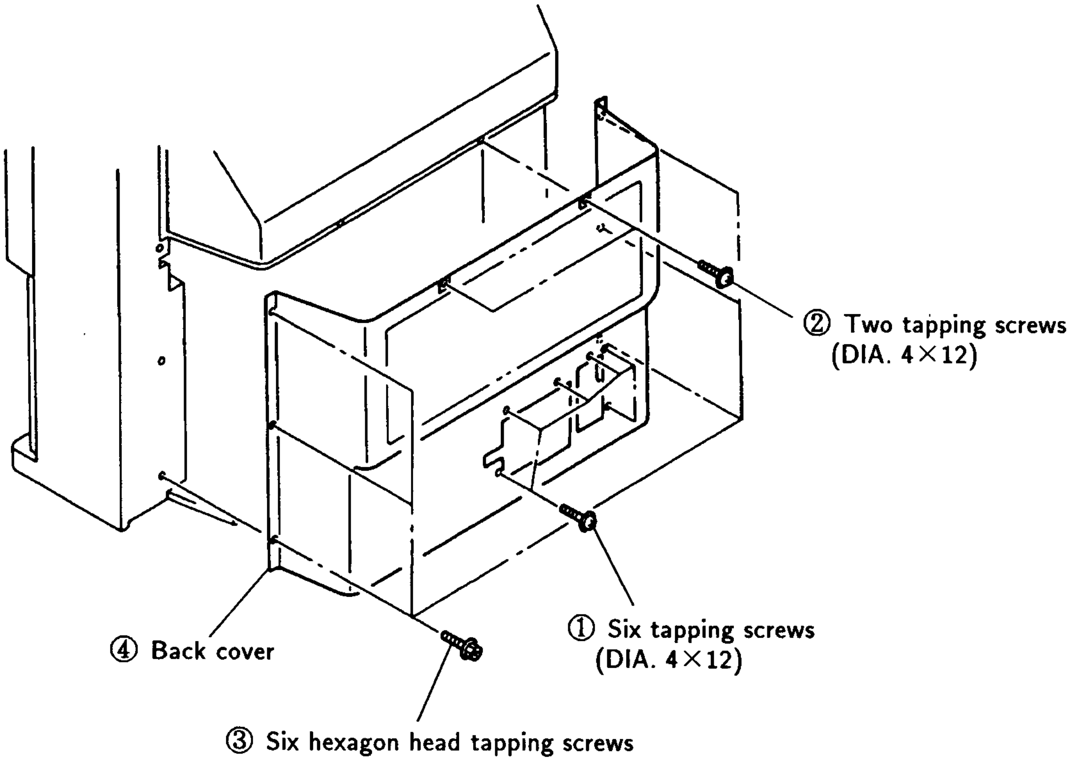
2-3-1. DIFFUSION PLATE REMOVAL (KPR-46EXR15)


③ Fourteen tapping screws (DIA. 4×12)
⑤ Screen holder (L)
④ Two screen holder (S)
⑥ Screen holder (L)
⑦ Diffusion plate (F)
① Three hexagon head tapping screws
⑧ Diffusion plate (L)
② Screen frame

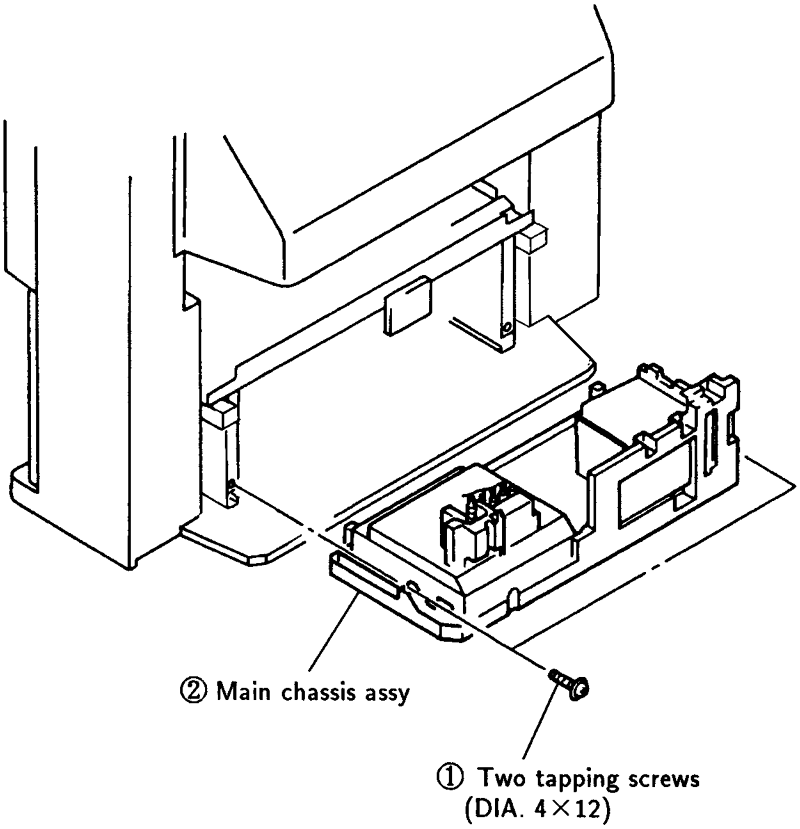
2-3-2. DIFFUSION PLATE REMOVAL (KPR-53EXR15)


Three claws
⑧ Diffusion plate (F)
⑤ Two screen holder (L)
④ Four screen holder (S)
⑦ Diffusion plate (L)
⑥ Two screen holder (L)
① Three hexagon head tapping screws
③ Twenty hexagon head tapping screws
② Screen frame (Remove the three claws)

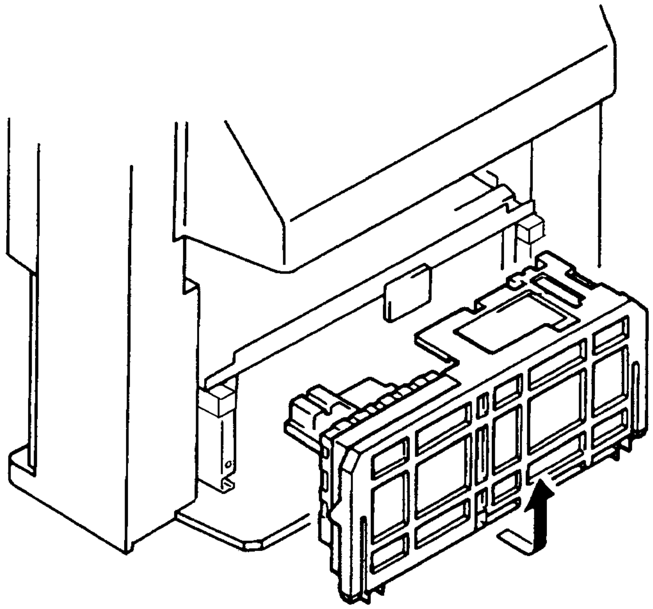
2-4. BACK COVER REMOVAL


② Two tapping screws
(DIA. 4×12)
④ Back cover
① Six tapping screws
(DIA. 4×12)
③ Six hexagon head tapping screws

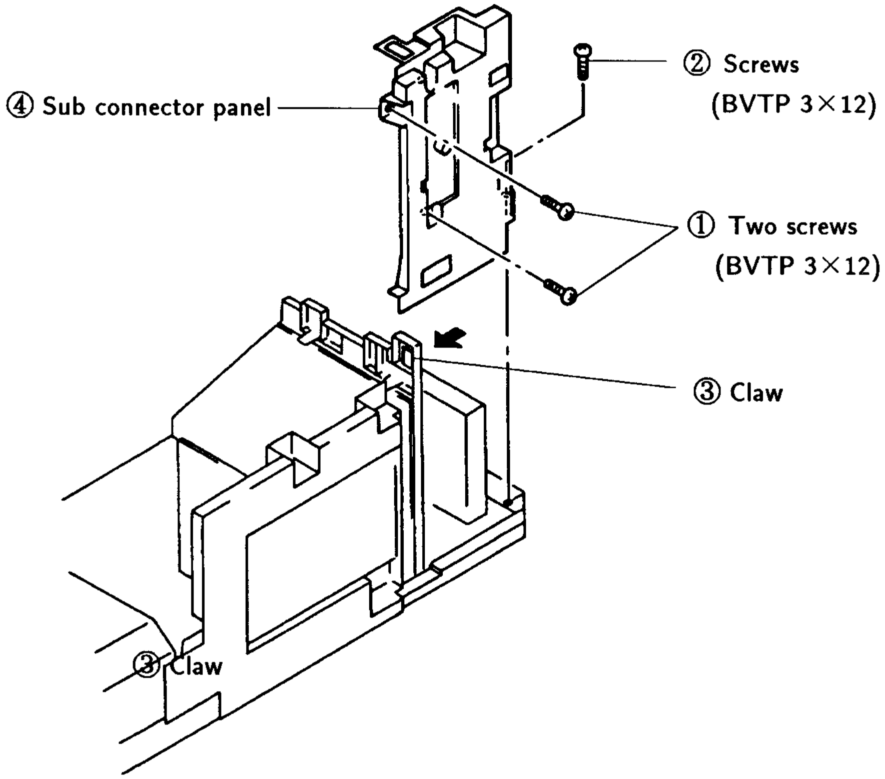
2-5. MAIN CHASSIS ASSY REMOVAL


② Main chassis assy
① Two tapping screws
(DIA. 4×12)

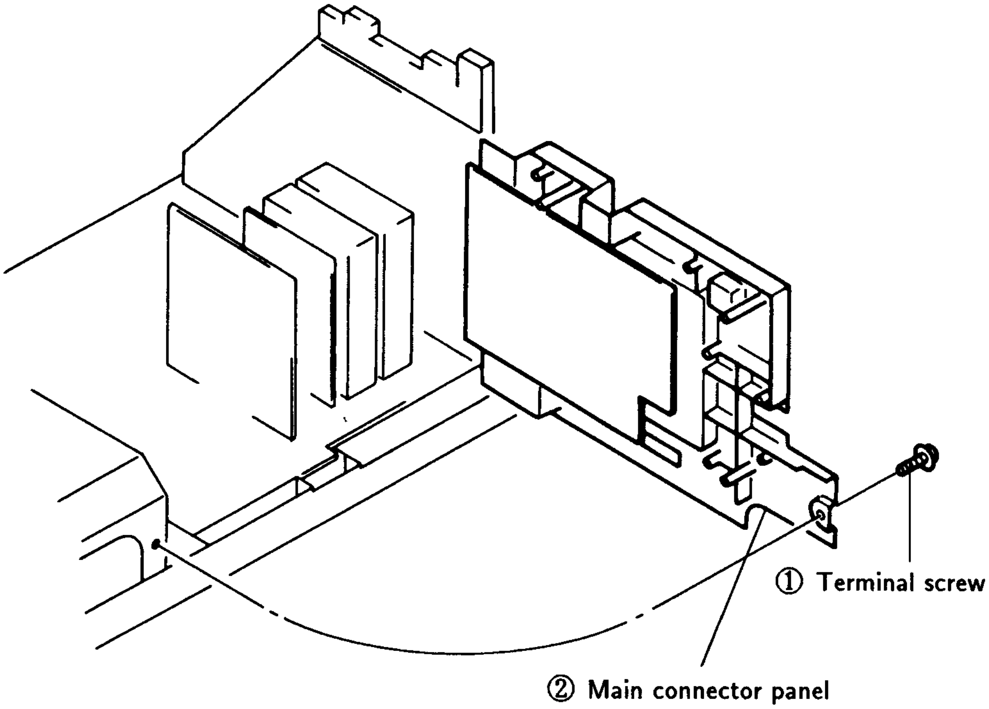
2-6. SERVICE POSITION



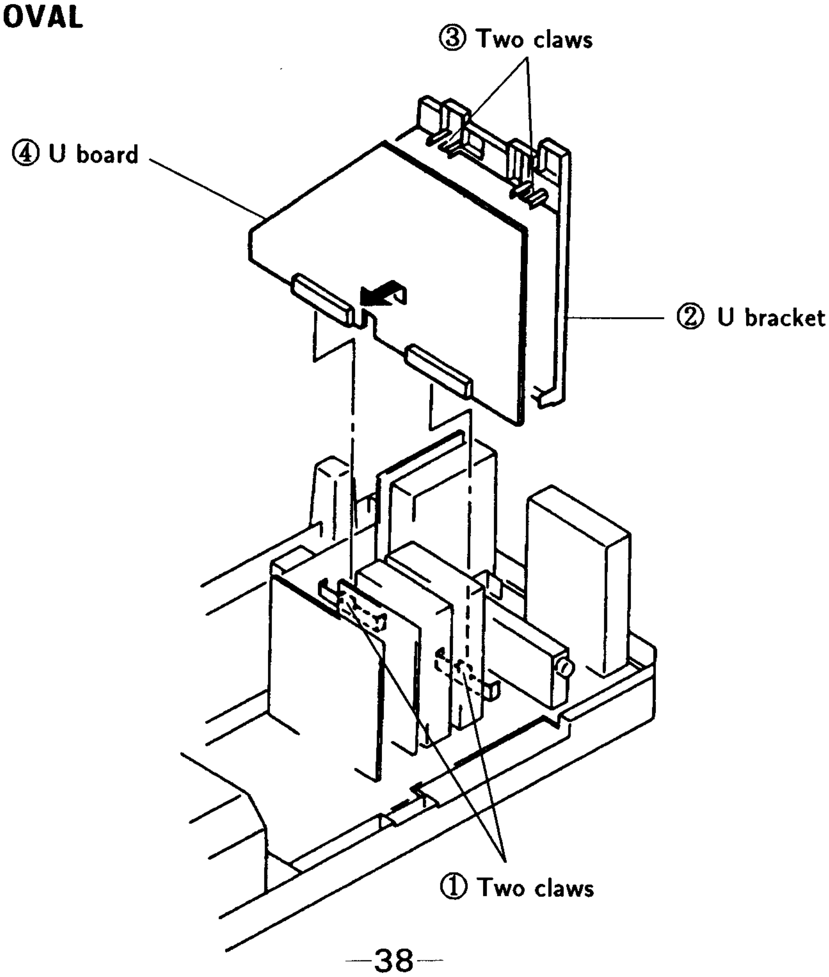
2-7. SUB CONNECTOR PANEL REMOVAL


② Screws
(BVTP 3×12)
④ Sub connector panel
① Two screws
(BVTP 3×12)
③ Claw
③ Claw

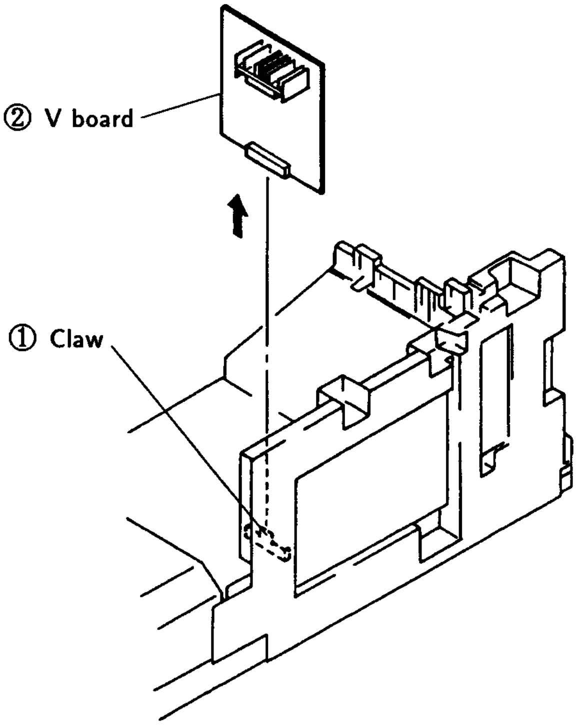
2-8. MAIN CONNECTOR PANEL REMOVAL


① Terminal screw
② Main connector panel

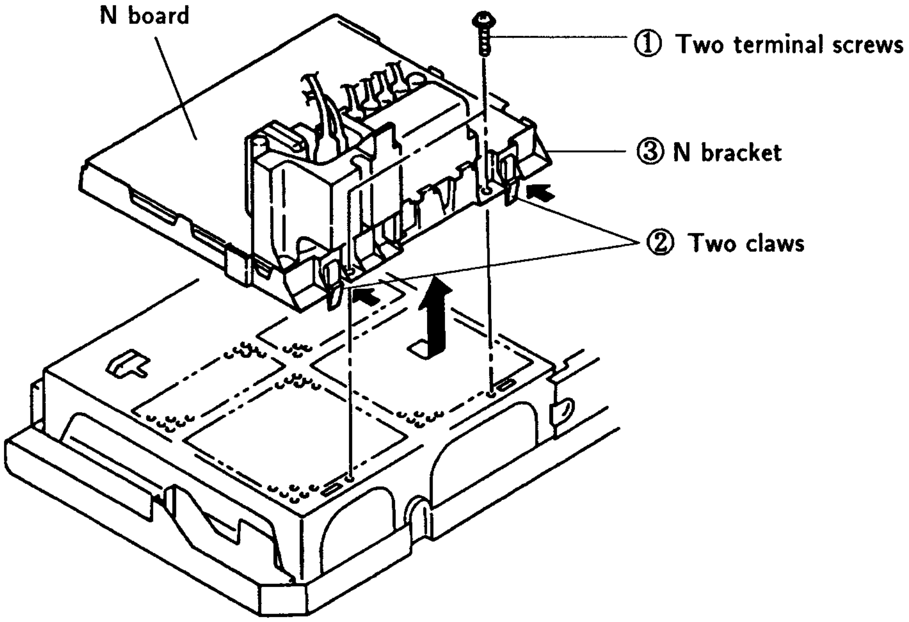
2-9. U BOARD REMOVAL


③ Two claws
④ U board
② U bracket
① Two claws

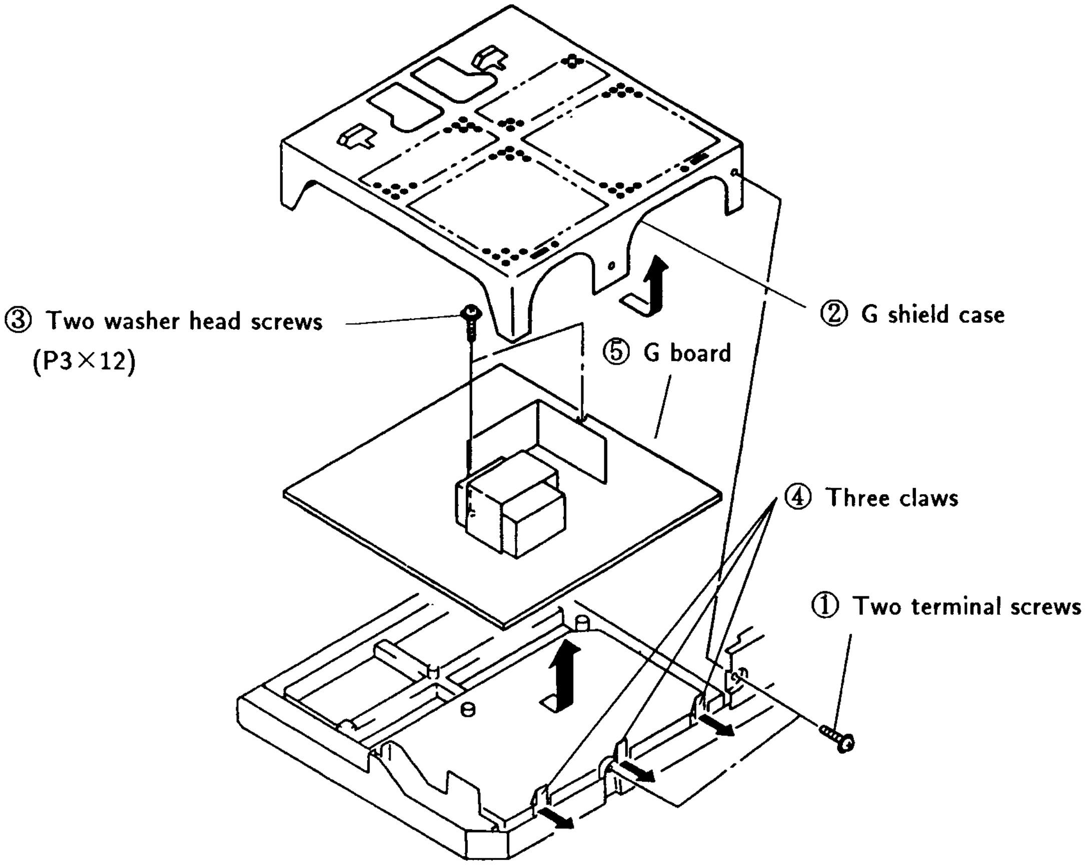
2-10. V BOARD REMOVAL


② V board
① Claw

2-11. N BRACKET REMOVAL

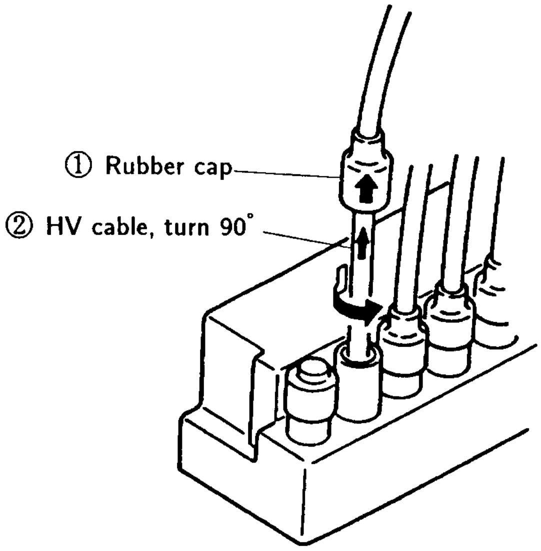

N board
① Two terminal screws
③ N bracket
② Two claws

2-12. G BOARD REMOVAL

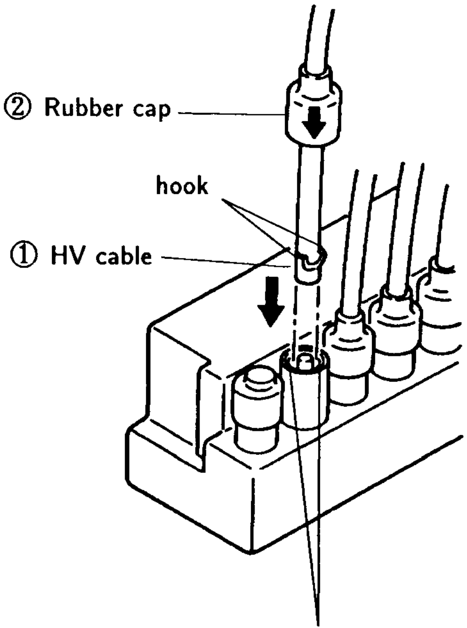

③ Two washer head screws (P3×12)
⑤ G board
② G shield case
④ Three claws
① Two terminal screws

2-13. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

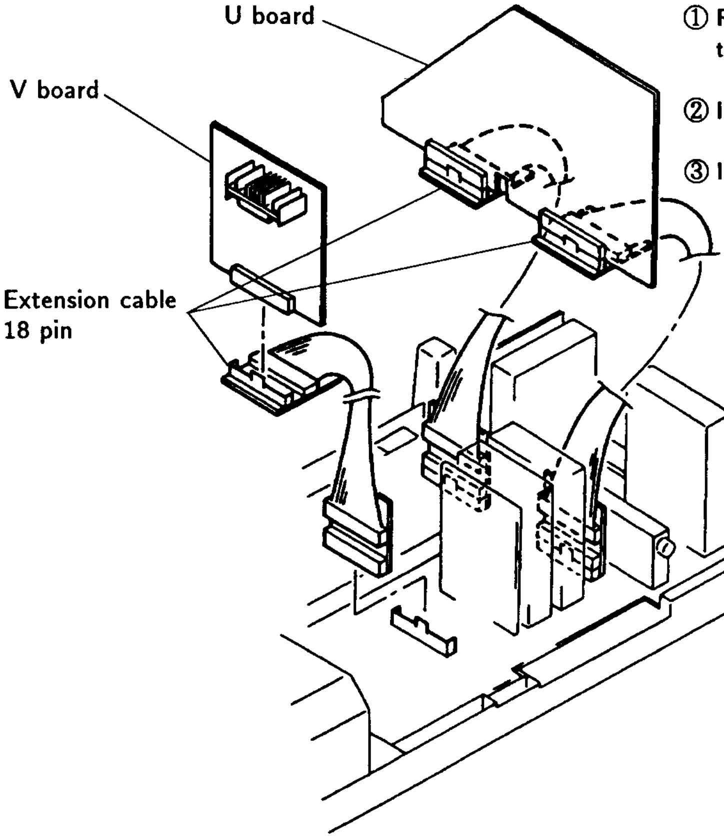
(1) Remover


① Rubber cap
② HV cable, turn 90°

(2) Installation


② Rubber cap
hook
① HV cable
gutter

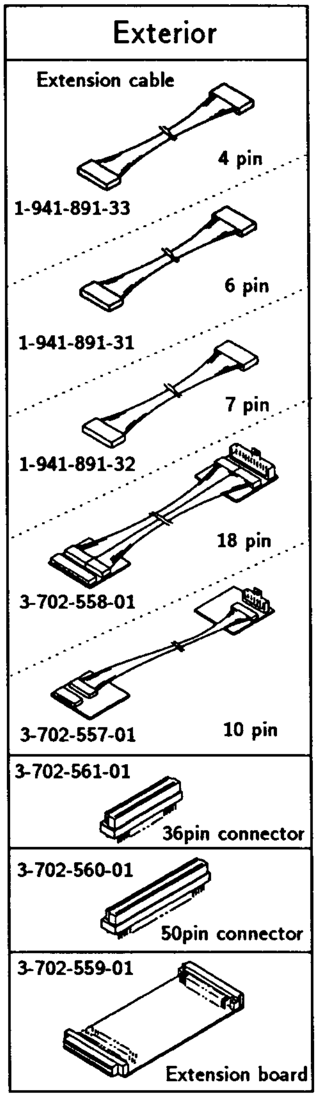
2-14. CONNECTOR CABLE

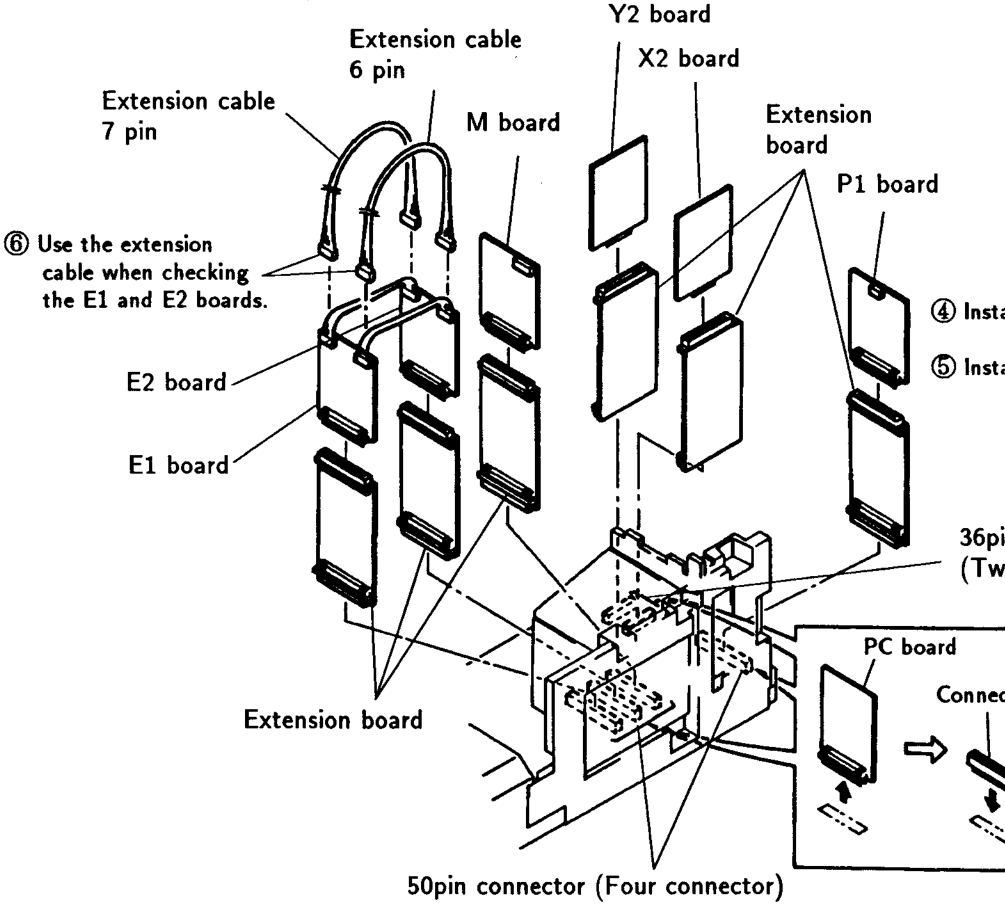

U board
V board
Extension cable
18 pin

① Remove the board from the connector.

② Install the extension cable.

③ Install the board.


Exterior
Extension cable
4 pin
1-941-891-33
6 pin
1-941-891-31
7 pin
1-941-891-32
18 pin
3-702-558-01
3-702-557-01
10 pin
3-702-561-01
36pin connector
3-702-560-01
50pin connector
3-702-559-01
Extension board


Extension cable
6 pin
Y2 board
X2 board
Extension cable
7 pin
M board
Extension board
P1 board
E2 board
E1 board
36pin connector
(Two connector)
Extension board
PC board
Connector
50pin connector (Four connector)

⑥ Use the extension cable when checking the E1 and E2 boards.

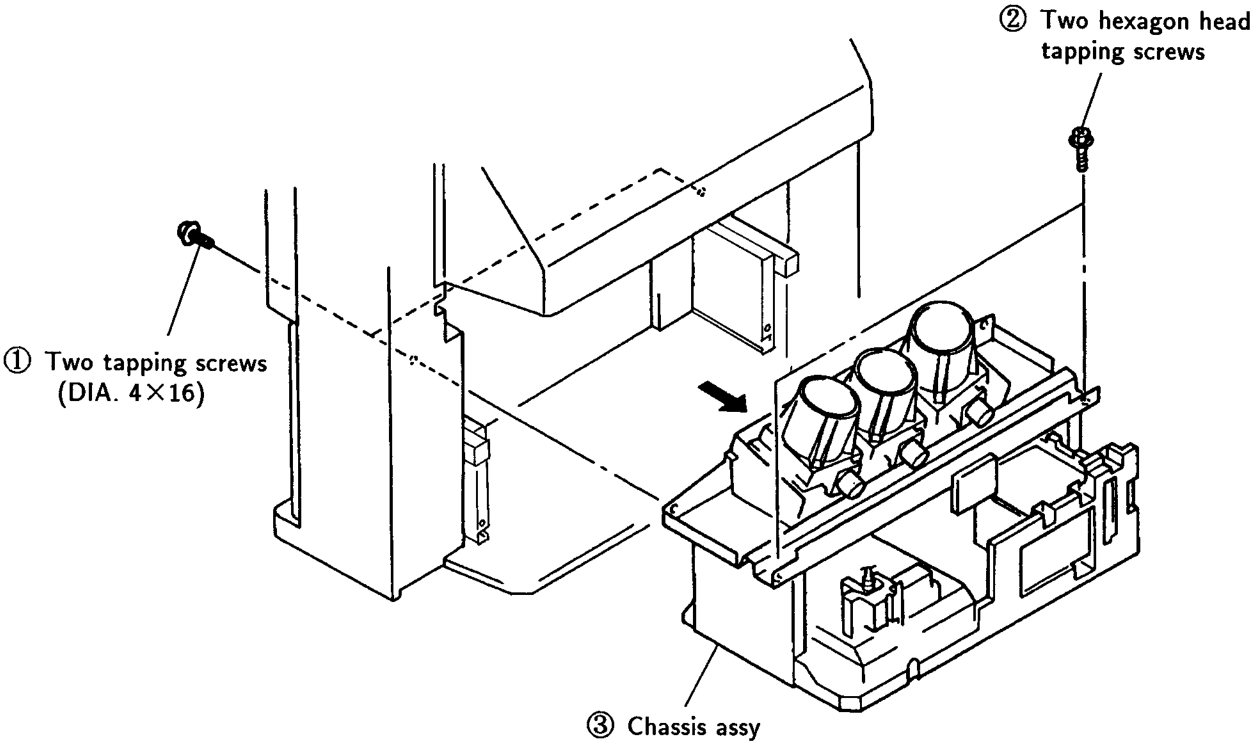
④ Install the PC board removed.

⑤ Install the extension board.

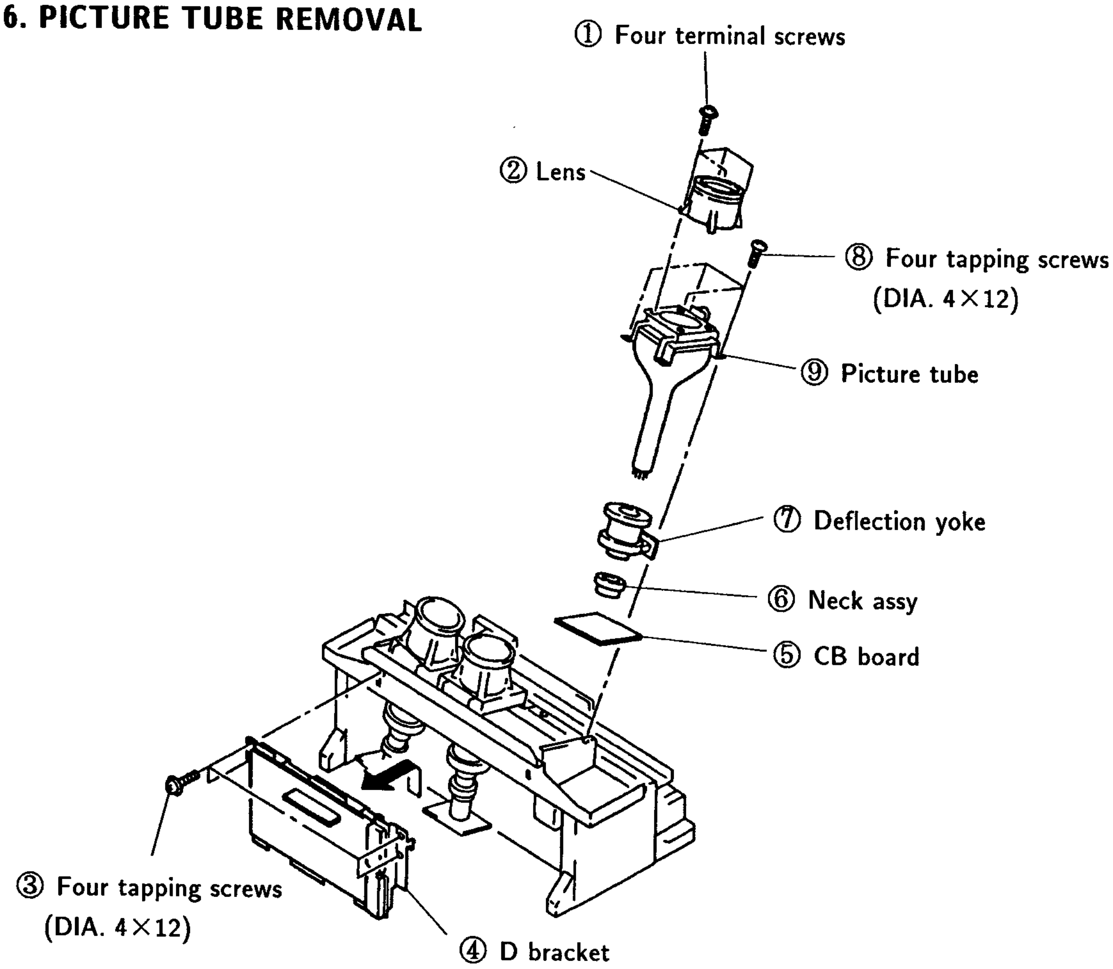
(1) De-solder the PC board and remove it.

(2) Solder the connector.

2-15. CHASSIS ASSY REMOVAL


② Two hexagon head tapping screws
① Two tapping screws (DIA. 4×16)
③ Chassis assy

2-16. PICTURE TUBE REMOVAL


① Four terminal screws
② Lens
⑧ Four tapping screws (DIA. 4×12)
⑨ Picture tube
⑦ Deflection yoke
⑥ Neck assy
⑤ CB board
③ Four tapping screws (DIA. 4×12)
④ D bracket

2-17. REPAIR OF CHIP COMPONENT CIRCUIT BOARD

2-17-1. POINTS OF COMPONENT REMOVAL

Handing of blower type soldering iron

If hot blast is too strong or applied from a slanting direction, small components and solder near the component being removed can be blown off. Do not use blower type without temperature control.

2-17-2. NOTES ON SOLDERING FOR CHIP COMPONENTS

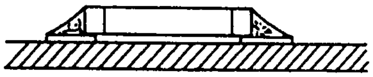
1) During soldering a chip component, if a soldering iron is applied for a long time, the heat may damage the component or cause pattern peeling.
2) Do not reuse a removed component. The characteristics of such a component may deteriorate.
3) Use wire solder containing silver (ϕ 0.3 or ϕ 0.6). (The pin electrodes of the laminated chip capacitor are silver +palladium, so if wire solder which does not contain silver is used, the silver of the pin electrode will be sucked into the solder.)

2-17-3. REMOVAL AND MOUNTING OF COMPONENTS

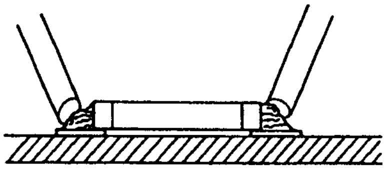
Chip resistor and chip capacitor

REMOVAL

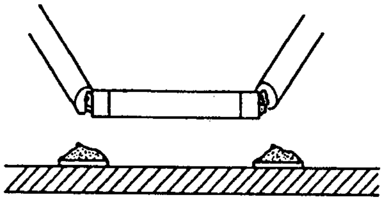
- Using two soldering irons
  1) Mounted state



2)Melt the solder.

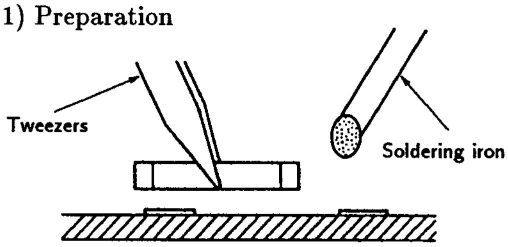


3)Remove the component.

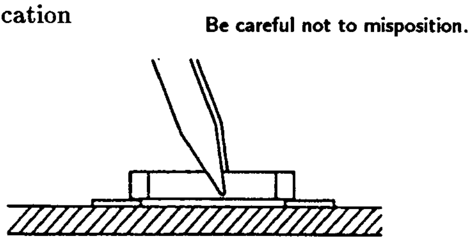


SOLDERING

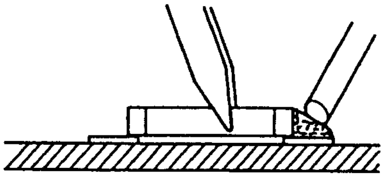
1) Preparation


Tweezers
Soldering iron

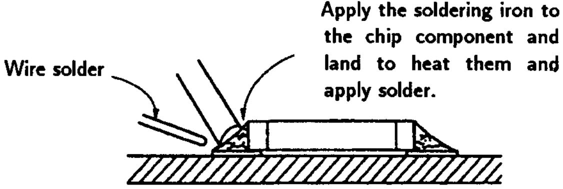
2) Location


Be careful not to misposition.

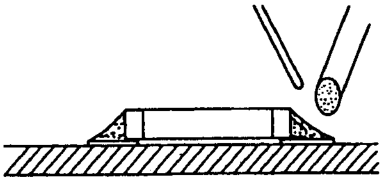
3) Tack soldering and flux application



4) Soldering


Wire solder
Apply the soldering iron to the chip component and land to heat them and apply solder.

5) Soldering (Fix the fillet.)



6) Visual inspection

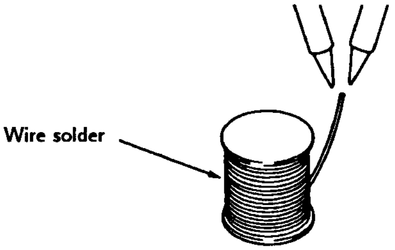
Check for the following defects :
- No-soldered part
- Bridge (to other components or lands)
- Mispositioning
- Other defects

2-17-4. MINI-TRANSISTOR

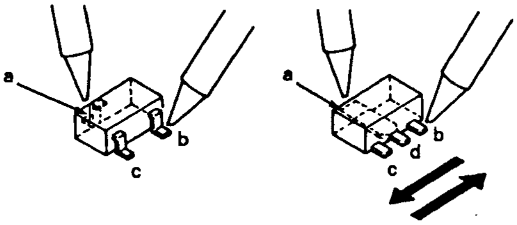
REMOVAL

- Using two soldering irons

1) Put a little solder on the tip of two soldering irons.

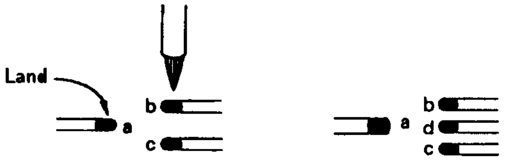

Wire solder

2) Apply the tip of one soldering iron to the point "a" and the other to the points "b" → "c" (or "b" → "d" → "c") and move the component in the directions indicated by arrows in the figure to remove it.

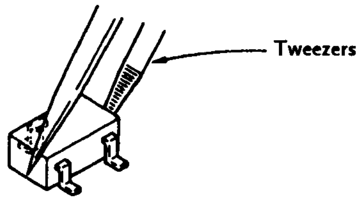


MOUNTING

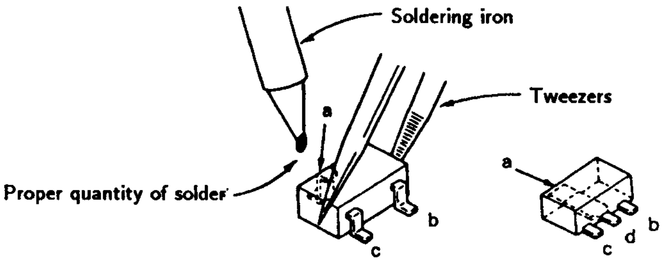
1) Apply a little flux to the land with a brush.


Land
a
b
c
a
b
d
c

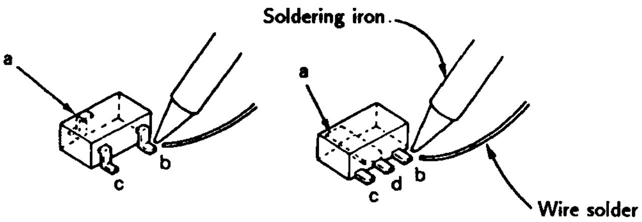
2) Place the component in position using tweezers.



3) Put a little solder on the tip of the soldering iron and solder the point "a" to fix the component.

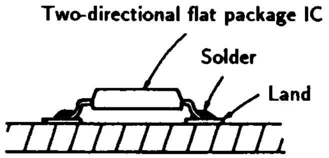

Soldering iron
Tweezers
a
Proper quantity of solder
b
c
a
b
d
c

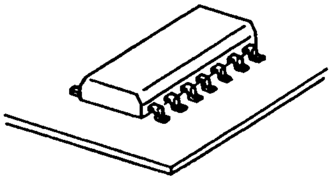
4) Bring the tip of the soldering iron and the wire solder close to the point to be soldered. Solder the points "b" → "c" (or "b" → "d" → "c") in order.


Soldering iron
a
b
c
a
b
d
c
Wire solder

2-17-5. TWO-DIRECTIONAL FLAT PACKAGE IC

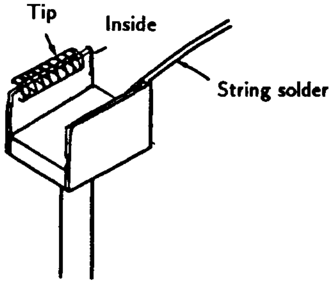
MOUNT CONDITION


Two-directional flat package IC
Solder
Land

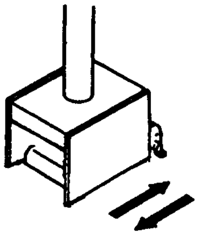


REMOVAL

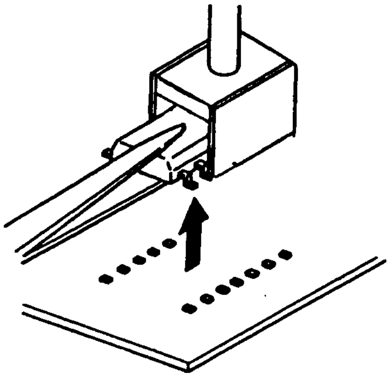
1) Apply some solder on the inside and the tip of the iron tip jig.


Tip
Inside
String solder

2) Place the iron tip jig over the IC, and move the jig to and fro as shown in the figure.

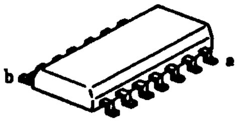


3) When the solder melts, lift the IC with a pair of tweezers and remove.

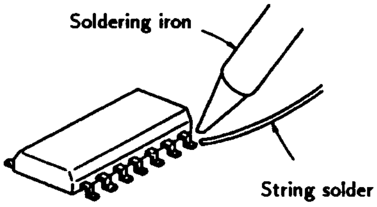


INSTALLATION

1) Place the two-directional flat package IC at the appointed position, solder pins a and b on the diagonal, and fasten it.

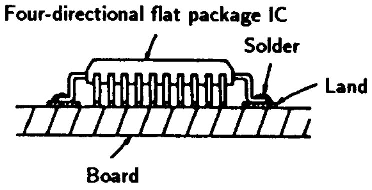


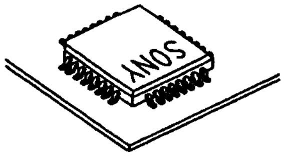
2) Solder the remaining pins with the soldering iron.


Soldering iron
String solder

2-17-6. FOUR-DIRECTIONAL FLAT PACKAGE IC

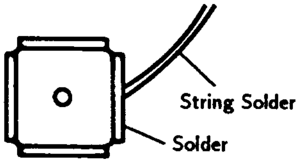
MOUNT CONDITION


Four-directional flat package IC
Solder
Land
Board

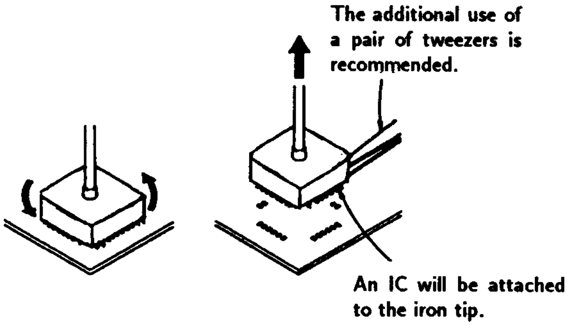


REMOVAL

1) Apply solder on the tip of the iron tip jig.


String Solder
Solder

2) Place the iron tip jig over the IC, wait about two to three seconds, rotate the iron slightly and lift it up.



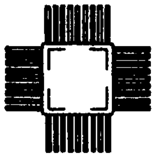
The additional use of a pair of tweezers is recommended.

An IC will be attached to the iron tip.

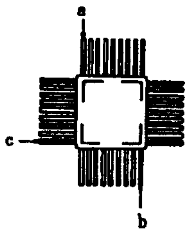
Note : For flat ICs of above 52P, the IC may not be completely attracted when the iron tip jig is lifted up. In these cases, use a pair of tweezers to remove.

INSTALLATION

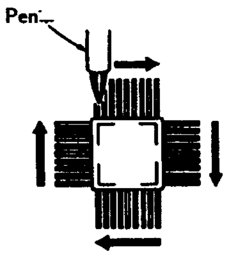
1) Place the four-directional flat package IC at the appointed position.



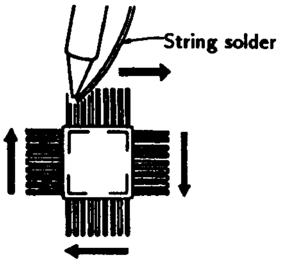
2) Apply a slight amount of solder on the iron tip, and solder the three sections in the order of a → b → c, and fix.



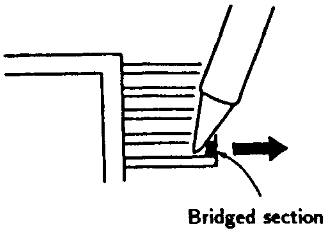
3) Apply a slight amount of flux with a pen on all four directions.



4) Apply solder on the iron tip and the string solder, and slide and solder in the directions of the arrows.


String solder

Note : 1) After soldering, if there are bridged sections, correct by sliding the soldering iron in the direction of the arrow.



If the bridges cannot be corrected using the above method, apply some flux with a pen and try again.

2) Soldering can be carried out more easily by sliding the iron tip near the tip of the IC leg. (Fig. A)

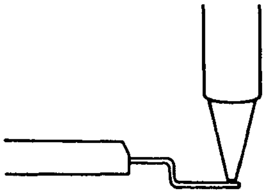


Fig. A

Be careful not to slide the bent sections of the leg as shown in Fig. B as soldering bridges will be formed.

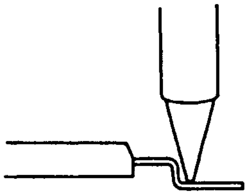
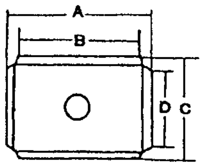
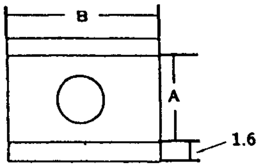
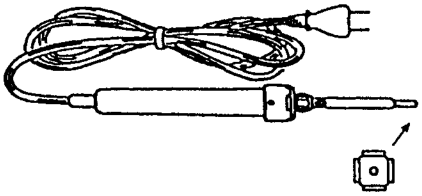
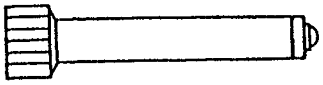


Fig. B

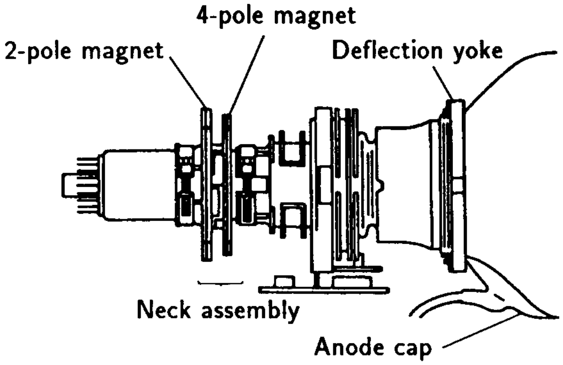
Exterior	Description	Part No.	Measure (mm)			
			A	B	C	D
	jig for removing 4-sided flat package IC	3-702-554-01	12.5	9.5	12.5	9.5
		〃 11	15.5	12.5	15.5	12.5
		〃 21	16.3	13.3	16.3	13.3
		〃 31	17.0	14.0	17.0	14.0
		〃 41	23.0	20.0	17.0	14.0
		〃 51	20.0	17.0	20.0	17.0
	jig for removing 2-sided flat package IC	3-702-555-01	6.0	5.0		
		〃 11	6.0	10.0		
		〃 21	7.0	12.5		
		〃 31	9.0	15.2		
		〃 41	9.0	18.0		
	soldering iron	3-702-552-01	55W 60g length 210mm			
	soldering holder	3-702-553-01				

SECTION 3

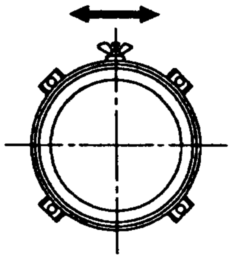
SETUP ADJUSTMENTS

3-1. FOCUS LENS ADJUSTMENTS

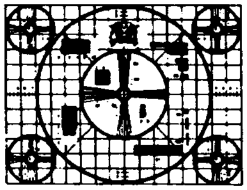
1. Set the D-board registration variable resistor (VR) and the position VR (CENTER VR) to mechanical.
2. Set the centering magnets (for red, green, and blue) to 0 as shown in the figure.

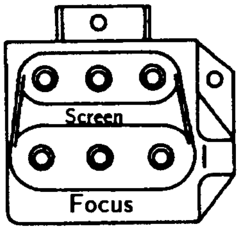


3. Input monoscope signal. Set 50% BRIGHTNESS and minimum PICTURE. Make rough adjustment so that 10IRE of the monoscope signal becomes faintly luminous.
4. Set PICTURE and BRIGHTNESS maximum. Press the commander menu button. Select CONVERGENCE to display test signal.
5. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
6. Turn the green lens to eliminate flare of the test signal.

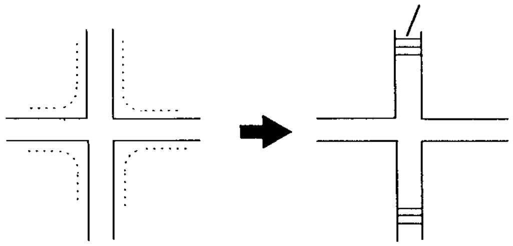


(Lens)



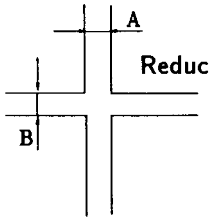


(Focus block)



Verify that scanning lines are seen.

7. Turn the green focus VR in the focus block to adjust green focus to reduce both A and B of the test signal to minimum.



Reduce both A and B to minimum.

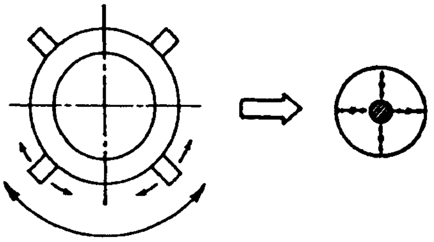
8. Repeat avobe 7. Couple of times to improve tracking and obtain an optimum lens focus. Then tighten the lens screws.

3-2. DEFLECTION YOKE POSITION ADJUSTMENTS

1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Loosen the deflection yoke (DY) fitting screws. Tilt the DY to obtain the best horizontal and vertical monoscope patterns.
4. After adjustment, press the DY onto the cathode ray tube (CRT) funnel and tighten the screws.
5. Also adjust DY positions for red and blue outputs in the same way.

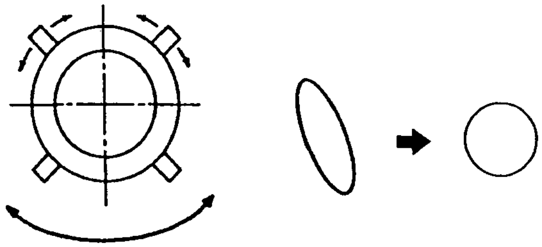
3-3. 2-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block counterclockwise to brighten the point in the dot.
4. Adjust the 2-pole magnet to position the bright point at the center of the dot.
5. Adjust the red and blue dots in the same way.



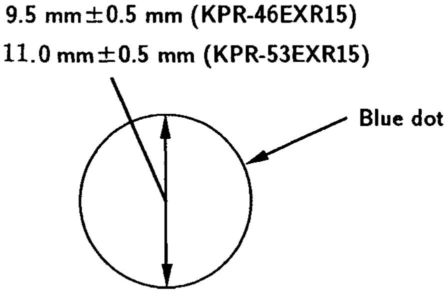
3-4. 4-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block clockwise until the dot diameter becomes 15 mm to 20 mm.
4. Adjust the 2-pole magnet to make the dot perfectly round.
5. Adjust the red and blue dot in the same way.



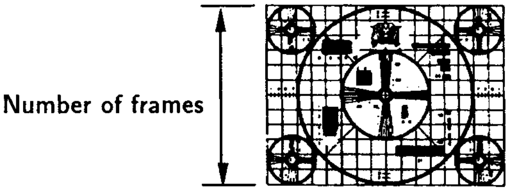
3-5. DE-FOCUS ADJUSTMENT (BLUE)

1. Input dot signal.
2. Turn the blue focus variable resistor (VR) in the focus block counter clock wise so that the diameter of the blue dot becomes 9.0±0.5mm (KPR-46EXR 15), 11.0±0.5mm (KPR-53EXR15).

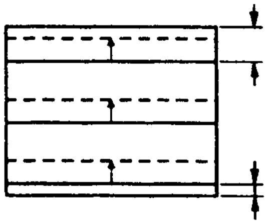


3-6. GREEN PICTURE ADJUSTMENTS

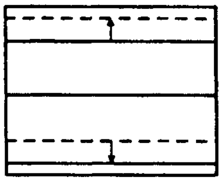
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Turn RV913 and RV960, the vertical green linearity variable resistors (V.G LIN VRs) on the D-board, to obtain an optimum vertical linearity.
   Then turn RV911, the vertical green amplitube variable resistor (V.G SIZE VR) to set vertical amplitude to 11.7 flames.
   Note: The vertical position indicator of the monoscope signal must be positioned at the center by adjusting RV905, the vertical green center position variable resistor (V.G CENT VR) in advance.



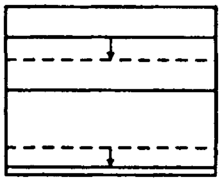
Monoscope signal



RV905 V.G CENT
(vertical position)

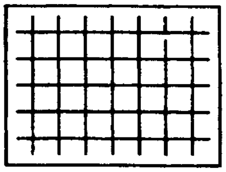


RV911 V.G SIZE
(vertical amplitude)

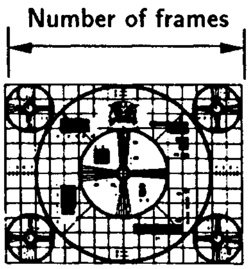


RV913

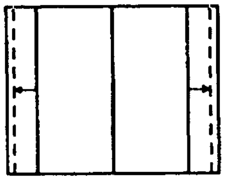
5. Verify that the horizontal lines on the top and bottom of cross-hatched area of the monoscope signal are horizontal and linear.



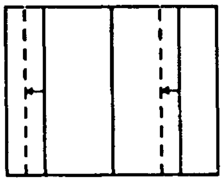
6. Turn RV916, RV964 and RV969, the horizontal green linearity variable resistors (H.G LIN VRs) on the D-board, to obtain an optimum horizontal linearity.
   Then turn RV908, the horizontal green amplitude variable resistor (H.G SIZE VR) to set horizontal amplitude to 15.6 frames.
   Note: The horizontal position indicator of the monoscope signal must be positioned at the center by adjusting RV902, the horizontal green center position variable resistor (V.G CENT VR) in advance.



Monoscope signal



RV908 H.G SIZE
(horizontal position)



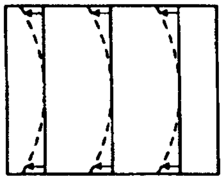
RV916 H.G LIN
(horizontal linearity)

7. Input cross hatch signal.
   Turn vertical green (V.G) and horizontal green (H.G) variable resistors (VRs) and make adjustments according to the following steps :

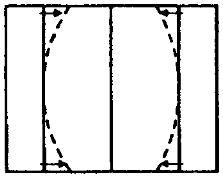
(Adjustment procedure)

1. [BOW] → [SKEW] → [CENT (center position)]
2. [PIN (pin warp)] → [SUB BOW] → [BOW]
3. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
4. [M.WAVE (middle sine wave warp)] →
   [WAVE-A (upper and lower sine wave warp)] →
   [WAVE-U (upper sine wave warp)]
   ※ For vertical (V) only.
5. [V-M.PIN (vertical middle pin warp)] →
   [V/WING (vertical wing warp)]
   ※ For vertical (V) only.
6. [H-M.PIN (horizontal middle pin warp)]
   ※ For horizontal (H) only.

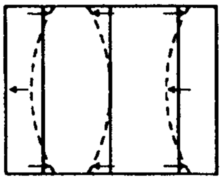
(Dot motion)



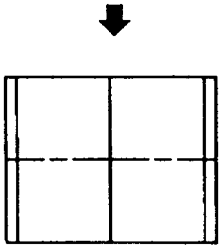
RV932 H.G BOW
(horizontal green bow)



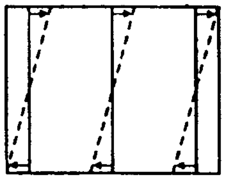
RV941 H.G PIN
(horizontal green pin warp)



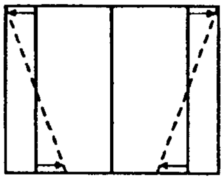
RV950 H.G SUB BOW
(horizontal green sub bow)



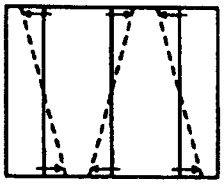
V.G BOW	RV935
V.G PIN	RV938
V.G SUB BOW	RV953



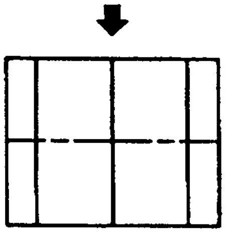
RV920 H.G SKEW
(horizontal green skew)



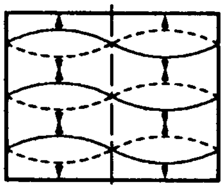
RV925 H.G KEYS
(horizontal green trapezoid)



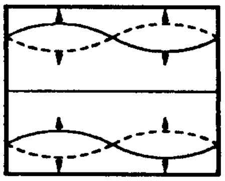
RV944 H.G SUB SKEW
(horizontal green sub skew)



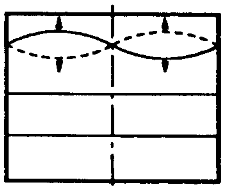
V.G SKEW	RV923
V.G KEYS	RV929
V.G SUB SKEW	RV947



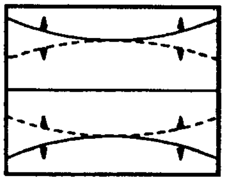
RV962 V-M-WAVE
(vertical middle sine wave warp)



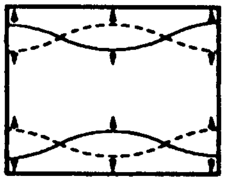
RV975 V-WAVE-A
(vertical upper and lower sine wave warp)



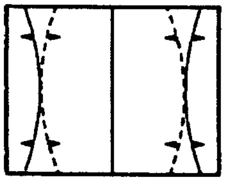
RV978 V-WAVE-U
(vertical upper sine wave warp)



RV980 V-M. PIN
(vertical middle pin warp)
※ Common in red, green, and blue



RV957 V/WING
(wing warp)
※ Common in red, green, and blue



RV956 H/M. PIN
(vertical middle pin warp)

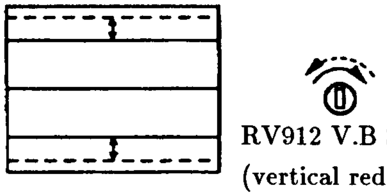
3-7. GREEN AND RED REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select B OFF of SERVICE MODE to cut off blue output.
3. Turn the vertical red (V.R) and horizontal red (H.R) variable resistors (VRs) to adjust red picture convergence in relation to green picture according to the following steps :

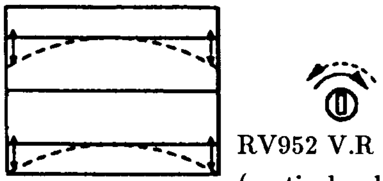
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW]
   [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] →
   [WAVE-A (upper and lower sine wave warp)] →
   [WAVE-U (upper sine wave warp)]

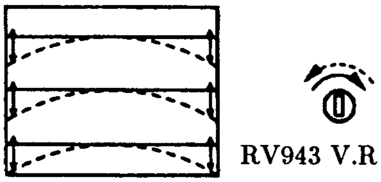
(Dot motion)



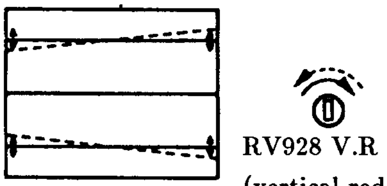
RV912 V.B SIZE
(vertical red amplitude)



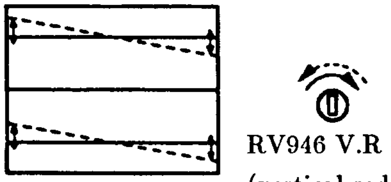
RV952 V.R SUB BOW
(vertical red sub bow)



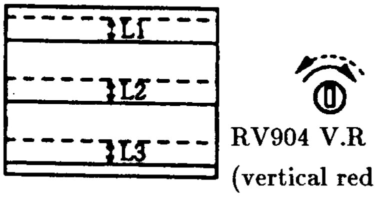
RV943 V.R BOW
(vertical red bow)



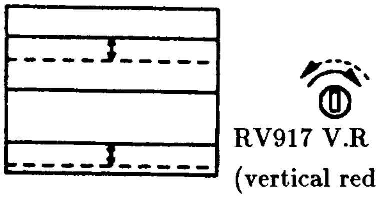
RV928 V.R KEYS
(vertical red trapezoid)



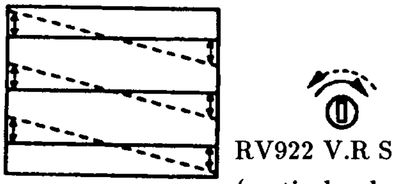
RV946 V.R SUB SKEW
(vertical red sub skew)



RV904 V.R CENT
(vertical red center position)



RV917 V.R LIN
(vertical red linearity)



RV922 V.R SKEW
(vertical red skew)

H.R LIN	RV915
H.R SIZE	RV907
H.R CENT	RV901
H.R BOW	RV931
H.R SKEW	RV919
H.R PIN	RV940
H.R KEYS	RV926
H.R SUB BOW	RV949
H.R SUB SKEW	RV943
V-M-WAVE	RV973
V-WAVE-A	RV976
V-WAVE-U	RV979
V-M.PIN	RV980
V/WING	RV957
H/M.PIN	RV956

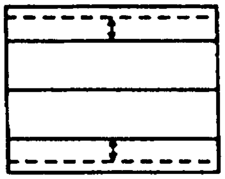
3-8. GREEN AND BLUE REGISTRATION ADJUSTMENTS

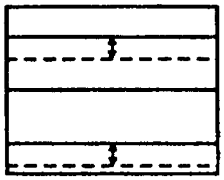
1. Input cross hatch signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
3. Turn the vertical blue (V.B) and horizontal blue (H.B) variable resistors (VRs) to adjust blue picture convergence in relation to green picture according to the following steps :

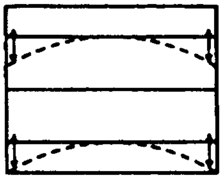
(Adjustment procedure)

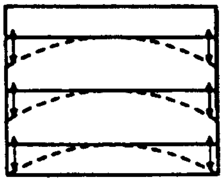
1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)] →

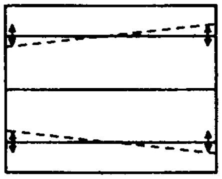
(Dot motion)

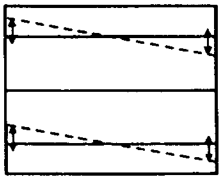

RV912 V.B SIZE
(vertical blue amplitude)

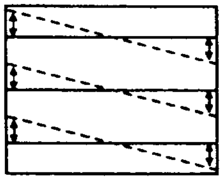

RV918 V.B LIN
(vertical blue linearity)

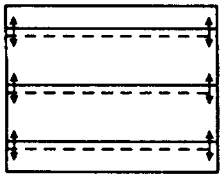

RV954 V.B SUB BOW
(horizontal blue sub bow)

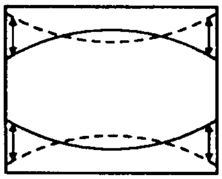

RV936 V.B BOW
(vertical blue bow)

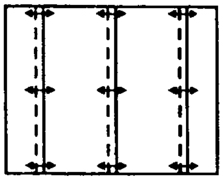

RV930 V.B KEYS
(vertical blue trapezoid)

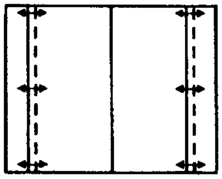

RV948 V.B SUB SKEW
(vertical blue sub skew)

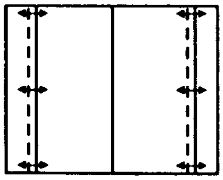

RV924 V.B SKEW
(vertical blue skew)

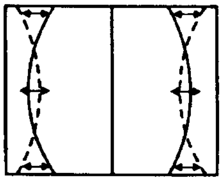

RV906 V.B CENT
(vertical blue center position)

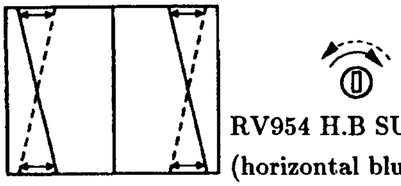

RV939 V.B PIN
(vertical blue pin warp)


RV903 H.B CENT
(vertical blue center position)

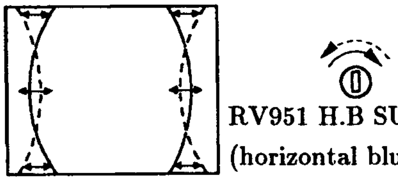

RV909 H.B SIZE
(horizontal blue amplitude)


RV914 H.B LIN
(horizontal blue linearity)

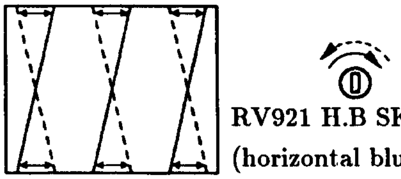

RV942 H.B PIN
(horizontal blue pin warp)



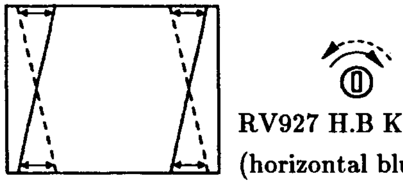
RV954 H.B SUB SKEW
(horizontal blue sub skew)



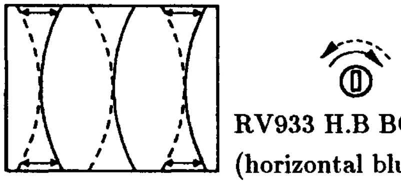
RV951 H.B SUB BLOW
(horizontal blue sub bow)



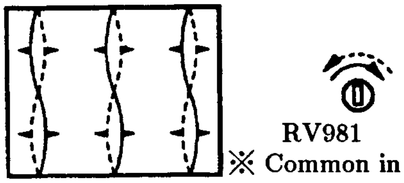
RV921 H.B SKEW
(horizontal blue skew)



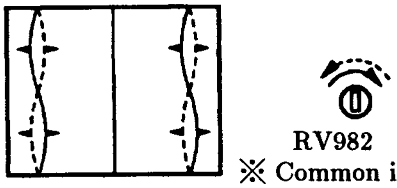
RV927 H.B KEYS
(horizontal blue trapezoid)



RV933 H.B BOW
(horizontal blue bow)



RV981
※ Common in red,
green, and blue



RV982
※ Common in red,
green, and blue

H/M PIN	RV958
M.WAVE	RV961
WAVE-A	RV974
WAVE-U	RV977

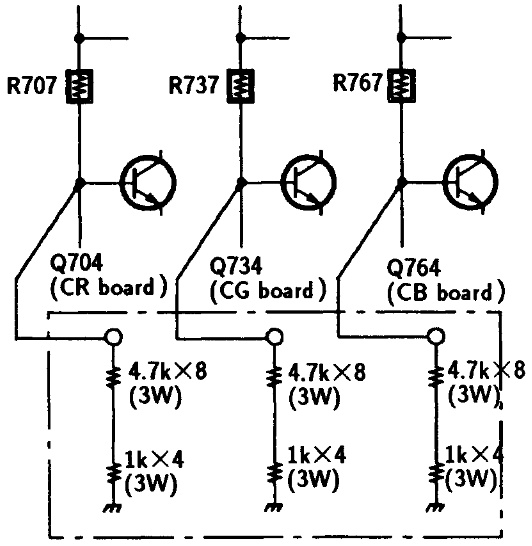
3-9. REGISTRATION ADJUSTMENTS

1. Out put red, blue, and green.
2. Out put cross hatch and monoscope signals to check registration. Also check focus.

3-10. WHITE BALANCE ADJUSTMENTS

1) Screen adjustment

1. Input white signal.
2. Remove connectors CR-15, CG-16, and CB-17.
3. Fit jigs between the ground and R707, R737, and R767.



※ Resistors in each jig are connected serial.

4. Turn the RGB (red, green, and blue) screen variable resistors in the focus block to make the flyback line faint. Stop before the line completely disappears.
5. Insert connectors CR-15, CG-16, and CB-17.

2) White balance adjustments (SBRT, GAMP, BAMP, GCUT, BCUT)

1. Input monoscope signal and enter service mode.
2. Select the picture quality adjustment from the menu and set PICTURE minimum. Set the SERVICE MODE.
3. Use the commander to adjust SBRT so that 10 IRE of the monoscope pattern becomes faintly luminous.
4. Input white signal.
5. Set PICTURE minimum. Adjust item GCUT and BCUT to obtain an optimum white balance.
6. Set PICTURE maximum. Adjust GAMP and BAMP to obtain an optimum white balance.
7. Repeat white balance adjustment alternating PICTURE setting at the minimum and maximum.

SECTION 4

SAFETY RELATED ADJUSTMENTS

4-1. SAFETY RELATED ADJUSTMENTS

When replacing the following components, make the HV REGULATOR adjustments (on the N board)

◪······HV block, IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834,R835, R836, R864, R865, R866, R902

When replacing the following components, make the HV HOLD DOWN adjustments (on the N board)

◪······HV block, IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R826, R829, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901

When replacing the following components, make the BEAM CURRENT PROTECTOR adjustments (on the N board)

◪······① IC802, Q805, Q807, D811, D812,C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881

② IC804, Q804, Q808, D808, D809, C809, C828,C829, C830, C831, R807, R839, R840, R841,R847, R848, R849, R850, R851, R852, R855, R856, R857, R881

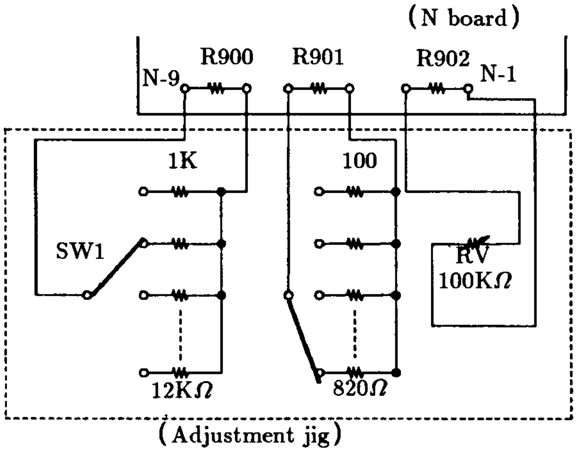
When replacing the following components, make the OVP CIRCUIT adjustments (on the G board)

◪······Q618, Q621, D628, C634, R639, R649, R652, R655, R656

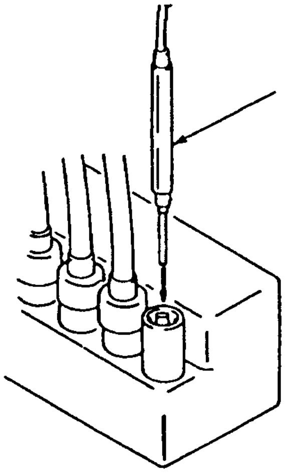
— Checking with static voltmeter —

HV HOLD DOWN ADJUSTMENTS (⊠R900, R901)

1. Verify that the power switch is off.
2. Connect the HV hold down adjustment resistance jig to the N9 and N1 connectors on the N board.



3. Connect an external variable resistor (RV) to R 902 of the N board.
4. Remove the cap off from the unused terminal of the high voltage block. Connect a static voltmeter to the terminal.

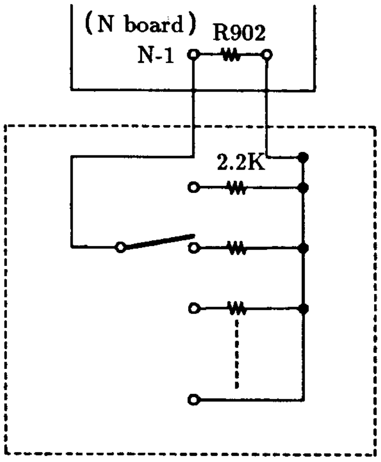


Remove high-voltage lead wire from the terminal and connect a digital multimeter there.

5. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
6. Use the external variable resistor of the hold down adjustment jig to make the static voltmeter to read 33.50 ± 0.50KVDC.
7. Raise resistances with the jig until the HV hold down circuit is activated. Read the figures then, and mount resistance of the measured figures to R900 and R901.
   R900 : Must be 1KΩ to 12KΩ
   R901 : Must be Jw 100Ω to 820Ω
8. Turn on power again. Vary external variable resistance and confirm that the HV hold down circuit is activated at the reated value, 33.50± 0.50KV.

HV REGULATOR ADJUSTMENTS (⊠R902)

1. Connect the HV adjustment resistance jig to R 902 of the N board.



(Adjustment jig)

2. Remove the red anode lead wire foe the CRT tube from the high-voltage block and connect the static voltmeter instead.
3. Receive 120 VAC power voltage and monoscope pattern signal. Set PICTURE and BRIGHTNESS to the standard.
4. Turn on power. To adjust the resistance of R902 with the adjustment jig to read the rated value, 31.50±0.50KV.
5. Receive all-white signal. Set BRIGHTNESS to the standard. Maximize PICTURE. Confirm that the rated value, 31.50±0.50KV is read.
6. Cut off RGB by VP26, 27, 28 of the service commander. Verify that the rated value, 31.50± 0.50KV, is read.

B+ VOLTAGE CONFIRMATION

1. Receive 130±1 VAC power voltage and monoscope pattern signal. Set BRIGHTNESS to standard and maximize PICTURE.
2. Connect a digital multimeter between the 115V line and the ground on the G board, and confirm that the rated value, $115.0^{+2.0}_{-3.0}$V is read.

CHECKING AFTER REPLACING IC601

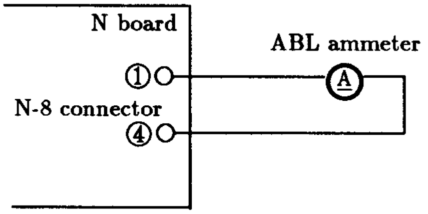
1. When replacing IC601, check the B+ voltage.

CHECKING THE OVP (overvoltage protection) CIRCUIT (⊠R652)

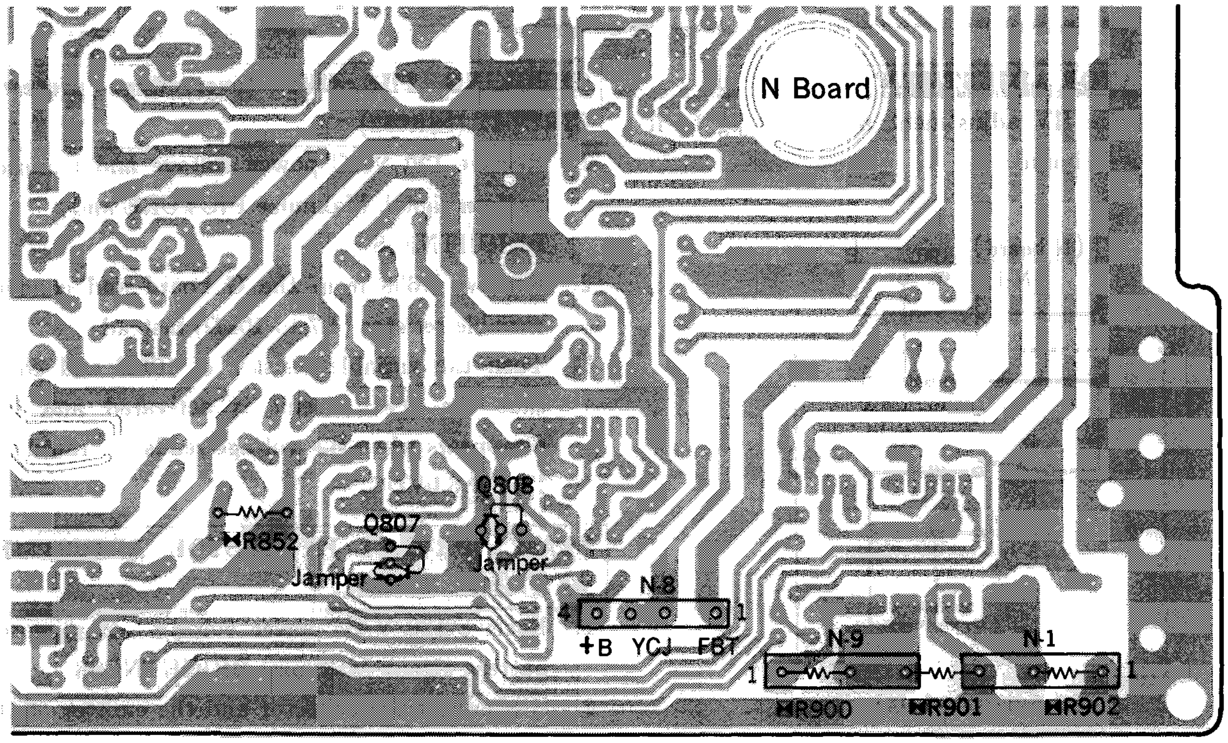
1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R638 from the G board and connect a variable resistor (4.7 to 10kΩ) instead.
3. Turn the variable resistor of 10kΩ and confirm that the OVP circuit is activated and luster disappears when B+ voltage reads the rated value, 125.0±5.0VDC.

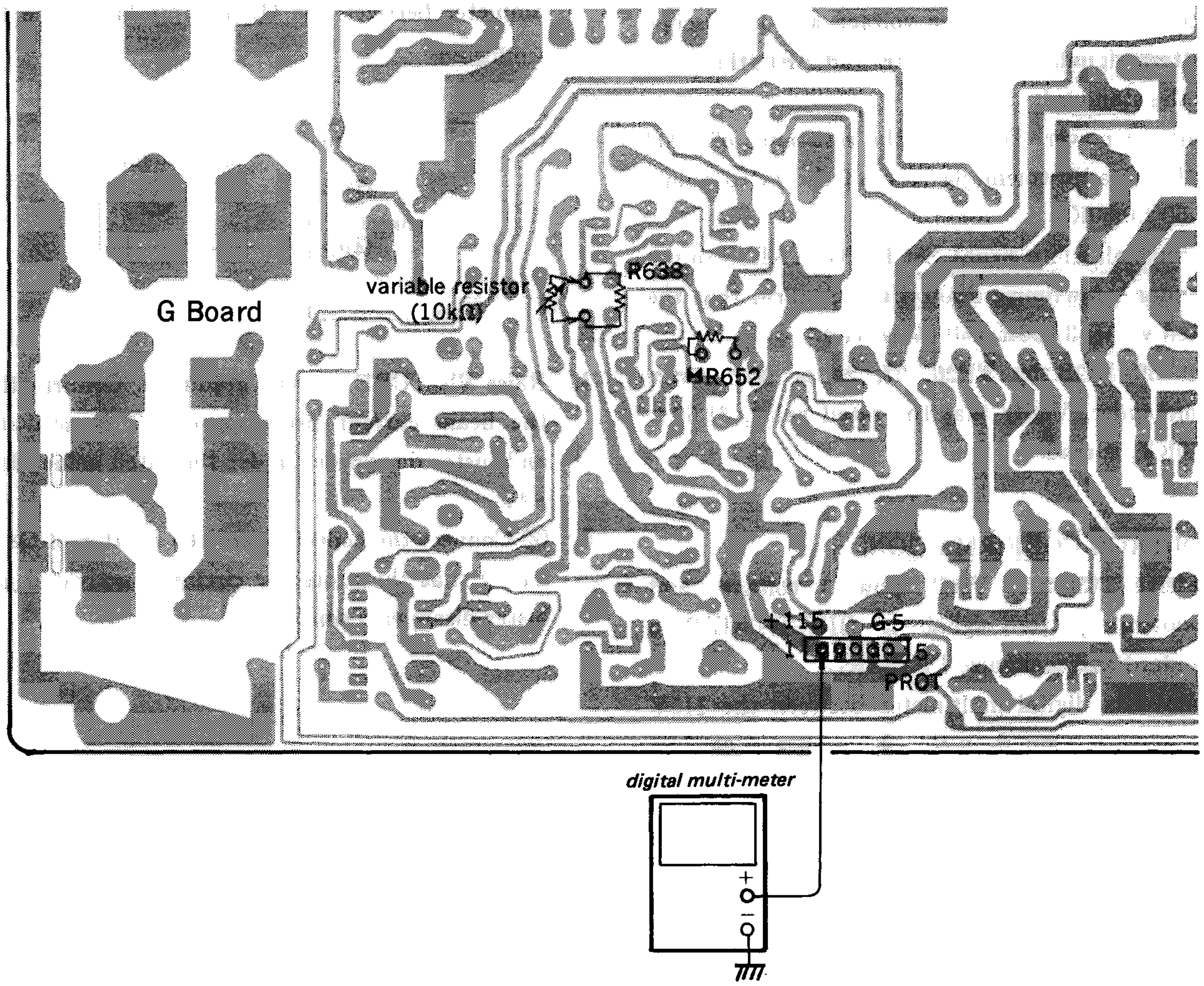
BEAM CURRENT PROTECTOR ADJUSTMENT (⊠ ① R852, ② R852)

1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize BRIGHTNESS.
2. ① Connect the collector and the emitter of Q807 (on the N board)
3. Remove the jumper connector from the N-8 connector on the N board. Then connect an ABL ammeter between pin ① and pin ④ of the N-8 connector.



4. Raise PICTURE current gradually. Confirm that the beam current protector circuit is activated and luster disappears under the rated value, 3400 μA.
5. ② Connect the collector and the emitter of Q808. Verify that the protector circuit is activated and luster disappears similarly.


N Board
Q808
Q807
R852
Jamper
Jamper
N-8
4
1
+B
YCJ
FBT
N-9
N-1
1
1
R900
R901
R902


G Board
variable resistor
(10kΩ)
R638
R652
+115
G-5
1
5
PROT
digital multi-meter
+
−

— Checking without static voltmeter —

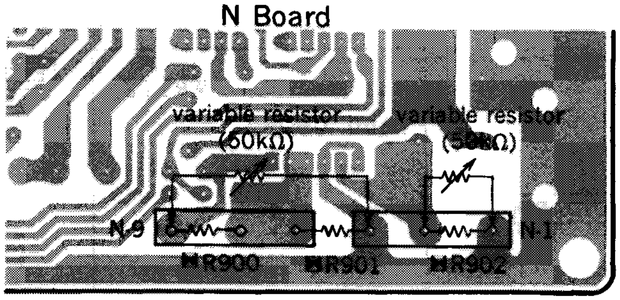
HV HOLD DOWN ADJUSTMENT (⊠R900, ⊠R901)

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R902 from the N board. Connect a variable resistor of 50kΩ on each end, and minimize the resistance.
3. Remove R900 and R901 from the N board. Connect a variable resistor of 50kΩ on each end, and minimize the resistance.
4. Connect a digital voltmeter between the D801 cathode and chassis ground of the N board.
5. Turn on the power switch. Adjust the variable resistors connected to the R902 of the N board to make the digital multimeter to read 145.0VDC.
6. Adjust the variable resistors connected to R900 and R901 on the N board so as to activate the HV hold down circuit and turn off the display.
7. Read the variable resistors connected to R900 and R901 and mount fixed resistors of measured resistance to the terminals.

   Note : Select fixed resistance from the following ranges.

   R900 : 1kΩ to 12kΩ

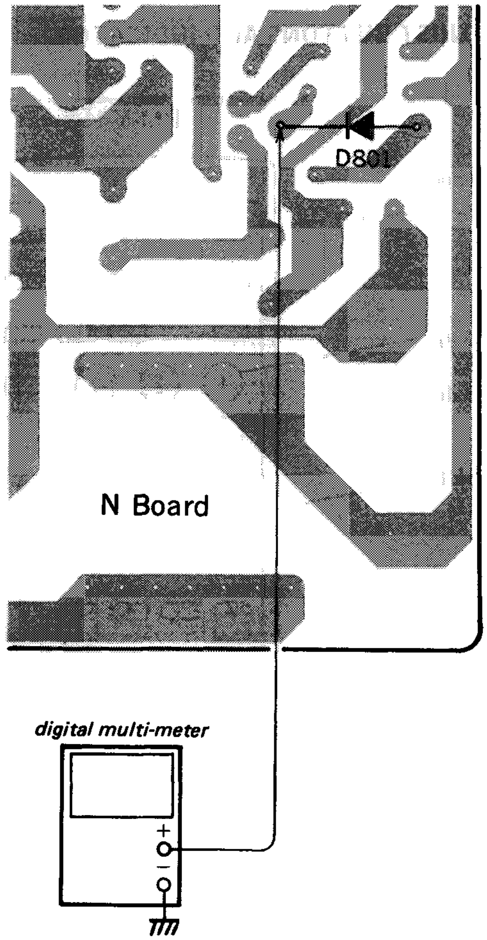
   R901 : Jw 100Ω to 820Ω
8. Maximize resistance of the variable resistor connected to R902 of the N board and turn on power.
9. Vary variable resistance at R902. Confirm that the HV hold down circuit is activated and the display is turned off when voltage reads 134±1.0V.



HV REGULATOR ADJUSTMENT (⊠R902)

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Connect a variable resistor of 50kΩ on each end of R902 of the N board. Maximize resistance.
3. Connect a digital voltmeter between the D801 cathode and the chassis of the N board.
4. Turn on power. Adjust the variable resistor so that the digital multimeter reads 135.0V±1.0V.
5. Read the variable resistance then.
6. Mount a fixed resistor of the measured resistance to R902.

   Note : R902 : Must be 2.2kΩ to 16kΩ
7. Turn on power again. Confirm that the digital multimeter reads 135.0V±1.0V.



SECTION 5
CIRCUIT ADJUSTMENTS

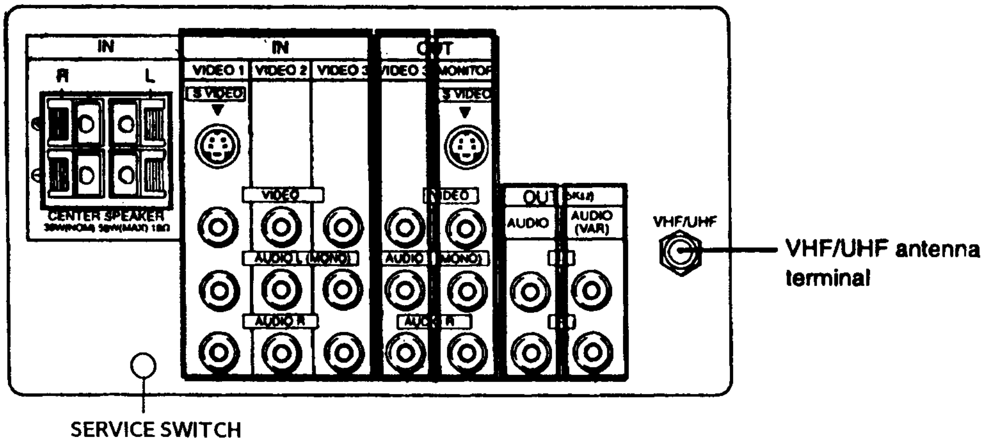
5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander (RM-Y112) can be performed circuit adjustments about this model.

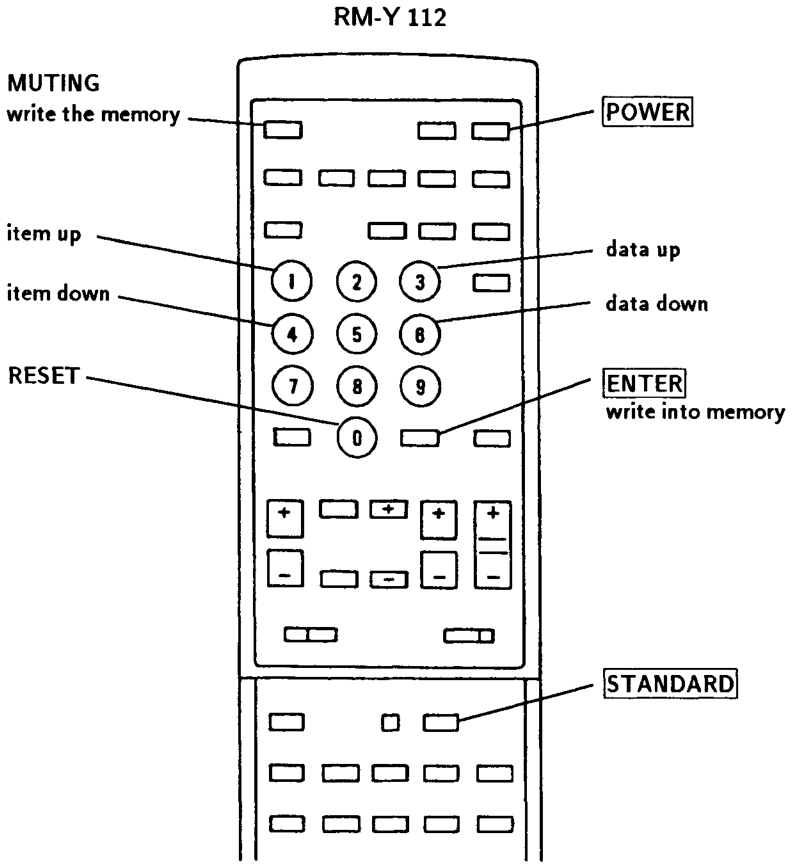
NOTE : Test Equipment Required.
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC

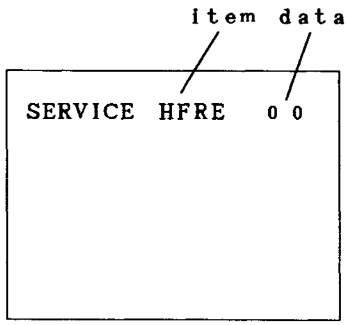
1. METHOD OF SETTING THE SERVICE MODE

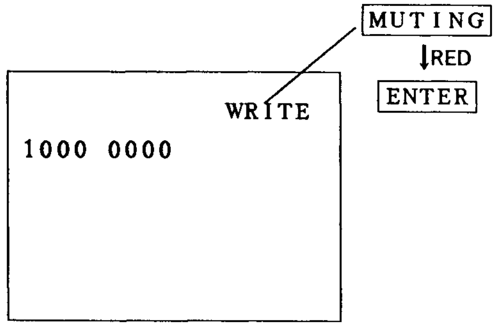
1) Press POWER button on the Remote Commander while pressing switch on the rear of the set.


IN
R
L
CENTER SPEAKER
IN
VIDEO 1
VIDEO 2
VIDEO 3
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
OUT
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO (MONO)
AUDIO R
OUT
AUDIO
AUDIO (VAR)
VHF/UHF
VHF/UHF antenna terminal
SERVICE SWITCH

2. ADJUST BUTTONS AND INDICATOR


RM-Y 112
MUTING
write the memory
POWER
item up
item down
data up
data down
RESET
ENTER
write into memory
STANDARD
1
2
3
4
5
6
7
8
9
0


item
data
SERVICE HFRE 0 0


MUTING
RED
ENTER
WRITE
1000 0000

— Checking without static voltmeter —

HV HOLD DOWN ADJUSTMENT (⊠R900, ⊠R901)

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R902 from the N board. Connect a variable resistor of 50kΩ on each end, and minimize the resistance.
3. Remove R900 and R901 from the N board. Connect a variable resistor of 50kΩ on each end, and minimize the resistance.
4. Connect a digital voltmeter between the D801 cathode and chassis ground of the N board.
5. Turn on the power switch. Adjust the variable resistors connected to the R902 of the N board to make the digital multimeter to read 145.0VDC.
6. Adjust the variable resistors connected to R900 and R901 on the N board so as to activate the HV hold down circuit and turn off the display.
7. Read the variable resistors connected to R900 and R901 and mount fixed resistors of measured resistance to the terminals.

   Note : Select fixed resistance from the following ranges.

   R900 : 1kΩ to 12kΩ

   R901 : Jw 100Ω to 820Ω
8. Maximize resistance of the variable resistor connected to R902 of the N board and turn on power.
9. Vary variable resistance at R902. Confirm that the HV hold down circuit is activated and the display is turned off when voltage reads 134±1.0V.

HV REGULATOR ADJUSTMENT (⊠R902)

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Connect a variable resistor of 50kΩ on each end of R902 of the N board. Maximize resistance.
3. Connect a digital voltmeter between the D801 cathode and the chassis of the N board.
4. Turn on power. Adjust the variable resistor so that the digital multimeter reads 135.0V±1.0V.
5. Read the variable resistance then.
6. Mount a fixed resistor of the measured resistance to R902.

   Note : R902 : Must be 2.2kΩ to 16kΩ
7. Turn on power again. Confirm that the digital multimeter reads 135.0V±1.0V.

3. AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA	NAME REGIST	
AFC	0	VP	AFC 1.0
HFRE	74	VP	H. FREQUENCE
VFRE	16	VP	V. FREQUENCE
HPOS	5	VP	H. PHASE
GAMP	25	VP	GREEN AMP.
BAMP	26	VP	BLUE AMP.
GCUT	9	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SPIX	40	VP	PICTURE
SHUE	29	VP	HUE
SCOL	28	VP	COLOR
SBRT	11	VP	BRIGHT
RGBP	28	VP	RGB PICTURE
SHAR	13		SHARPNESS
DISP	21		OUTPUT
VSMO	0	VP	VSMO
REF	1	VP	REF 1.0
ROFF	1	VP	OFF NR
GOFF	1	VP	OFF NG
BOFF	1	VP	OFF NB
ABLM	0	VP	ABLM
DRGB	0	VP	D RGB
TEST	0	AP	T
MPX	7	AP	ATT
FILO	31	AP	I 1
DEEM	7	AP	I 2
STEV	31	AP	OSC 1
SAPV	31	AP	OSC 2
PILO	7	AP	PILOT
SEP	31	AP	WIDE BAND
VD	7	AP	SPECTRAL
LVOL	0	AP	VOLUME-L
RVOL	0	AP	VOLUME-R
BASS	10	AP	BASS
TRE	8	AP	TREBLE
PHPO	32	PI	READ DELAY H
PVPO	8	PI	READ DELAY V
PLEV	6	PI	PICTURE LEVEL
PFCO	7	PI	FRAME COLOR
NRLE	31		NR LEVEL
DSPP	43		
SHAD	1	PJ	SHADON
VMSW	1	PJ	RS HAD
SCUT	16	PJ	SHAD CUT OFF

4. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press POWER button on the commander) in the next place, press POWER button again, hereupon it becomes TV mode.

5. METHOD OF WRITE FOR MEMORY

1) Set to Service Mode.
2) Press 1 (UP) and 4 (DOWN), select an item of adjustments.
3) Press MUTING button indicate WRITE (RED) on screen.
4) Press ENTER button to write for memory.

6. MEMORY WRITE CONFIRMATION METHOD

```
          WRITE

1000 0000
```

1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again, confirm they were adjusted.

5-2. A BOARD ADJUSTMENTS

RF AGC ADJUSTMENT(IF BLOCK VR)

1) Input a color-bar signal.
2) Adjust AGC VR of TU 101 so that snow noise and cross-modulation disappear from the picture.
3) Confirm them at every channel.

H.FREQUENCY ADJUSTMENT (HFRE)

1) Set to Service Mode.
2) Input a color-bar signal.
3) Connect a frequency counter to base of Q 507.
4) Call the item of AFC, set to 3 level (free run).
5) Select HFRE with $\boxed{1}$ and $\boxed{4}$.
6) Adjust $\boxed{3}$ and $\boxed{6}$ to the 15735± 60 Hz level.
7) Call the item of AFC again, adjust the level" 01 ".
8) Write into the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.

V.FREQUENCY ADJUSTMENT (VFRE)

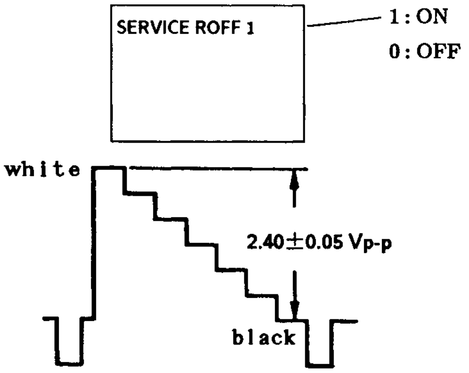
1) Set the Service Mode.
2) Input an off-air signal (VIDEO IN → no signal).
3) Connect the frequency counter across connector ⑪pin of E 1-1 connector and ground.
4) Select VFRE with $\boxed{1}$ and $\boxed{4}$.
5) Adjust $\boxed{3}$ and $\boxed{6}$ to the 55 ±0.5 Hz.
6) Write the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.

SUB CONTRAST ADJUSTMENT (SPIX)

1) Set to Service Mode.
2) Input a color-bar signal. (75 IRE)
3) Set the conditions as follows.

PICTURE	.... MAX
COLOR	.... MIN
BRIGHTNESS	.... MIN
TRINITONE	.... LOW
R OFF	.... ON
G OFF	.... OFF
B OFF	.... OFF

Press $\boxed{\text{MENU}}$ and select VIDEO MENU → $\boxed{-}$ (L) (It becomes minimum).
Select $\boxed{3}$ (ON) and $\boxed{6}$ (OFF) with $\boxed{1}$ and $\boxed{4}$.

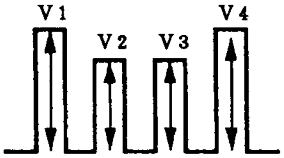


4) Connect an oscilloscope to TP 49 B of C board and ground.
5) Adjust $\boxed{3}$ and $\boxed{6}$ to the 2.40 ± 0.05 Vp-p level by select-ing SPIX with $\boxed{1}$ and $\boxed{4}$.
6) Write the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.
7) Return the following back to normal after adjustment.

G OFF	.... ON
B OFF	.... ON
COLOR	.... CENTER
BRIGHTNESS	.... CENTER
TRINITONE	.... HIGH
PICTURE	.... 80%

SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

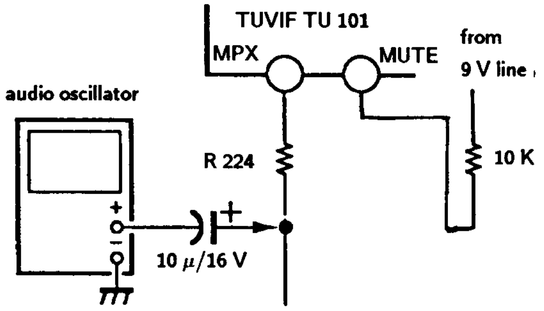
1) Input a color-bar signal.
2) Press STANDARD to normal.
3) Set to Service Mode.
4) Connect an oscilloscope to B output of A board and ground.
5) Adjust 3 and 4 to the V1=V4 and V2=V3 by select to SHUE and SCOL with 1 and 4. Lower the data 4 steps from this point.



6) Write into the memory by pressing MUTING →then ENTER.

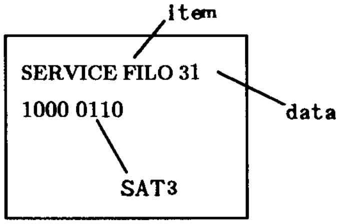
FILTER ADJUSTMENT (MPX, FILO)

1) Set to Service Mode.
2) Select to TEST with 1 and 4, set the data to "1". Then select MPX and change data to "08".
3) Connect an audio oscillator to R224 using a capacitor (10μ F/16V), set frequency to 62.936 kHz±0.1 kHz.
And then, through the 10kΩ resistor, feed 9.0V into the mute of TUVIF TU 101.



V 4 fh : SINE-WAVE 62.936 KHz±0.1 KHz
LEVEL 3.0 Vp-p

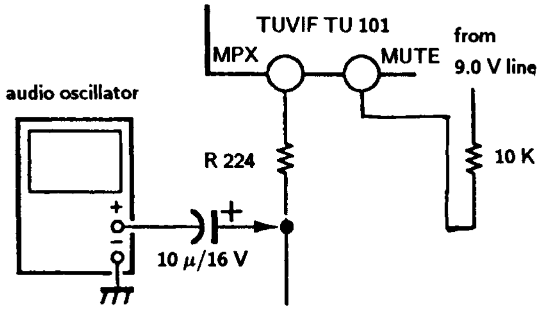
4) Make the data "00" by selecting FILO with 1 and 4 And then, send up the data gradually by pressing 6. Set the data to D1 before SAT3 changing to 1 from 0.
5) Send up the data gradually. Set data D2 when SAT3 changes 0 from 1.
6) Adjust the data of FILO to $\frac{D1+D2}{2}$.
7) Write into the memory by pressing MUTING → then ENTER.



SERVICE FILO 31
1000 0110

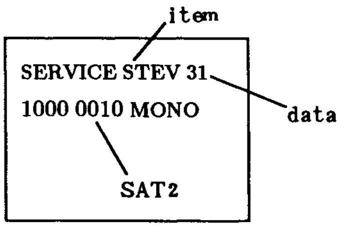
ST VCO ADJUSTMENT (MPX, STEV)

1) Set to Service Mode.
2) Select TEST with 1 and 4 , set the data to "1". And then press MTS to MONO.
3) Select MPX, set the data "8" .
4) Connect an audio oscillator to R 224 using electrolytic capacitor (10μ F/16V) and appply the frequency V_{ST}. Then, apply DC voltage to mute of TUVIF TU 101 using 10kΩ connect to 9.0 V line.



Vfh : SINE-WAVE 15.734 KHz±0.1 KHz
LEVEL 0.28 Vp-p

5) Select STEV with 1 and 4, set the data to "00" with 6. And then, send up the data gradually. Set the data to D1 before SAT2 changes from 0 to 1.
6) Send up data gradually, set the data to D2 when SAT2 changes 1 from 0.
7) Adjust the data of STEV to .
8) Write into the memory by pressing MUTING → then ENTER .



MPX IN LEVEL ADJUSTMENT (MPX)

1) Set to Service Mode.
2) Select TEST with 1 and 4 , set the data to "0" with 6 . And then press MTS to MONO.
3) Select MPX with 1 and 4 , set the data to "08" with 3 and 6.
4) Write into the memory by pressing MUTING → then ENTER .

PILOT CANCEL ADJUSTMENT (PILO)

1) Set to the Service Mode.
2) Select PILO with 1 and 4, set the data to "08" with 3 and 6.
3) Write into the memory by pressing MUTING → then ENTER .

SAP VCO f$_0$ ADJUSTMENT (SAPV)

1) Set to Service Mode.
2) Input a stereo broadcast signal with SAP.
3) Select TEST with 1 and 4 , set the data to "0" . And then, press MTS to MAIN.
4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.
5) Press MTS to SAP and this voltage will equal V 2.
6) Select SAPV with 1 and 4 , adjust 3 and 6 so that V 2=V 1±0.03 VDC.
7) Write the memory by MUTING → ENTER .

SEPARATION ADJUSTMENT (SEP)

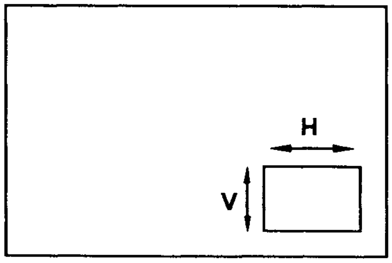
1) Set to Service Mode.
2) Press MTS to MAIN and receive a monoral broad-cast signal.

In the next step, receive a stereo broadcast signal.

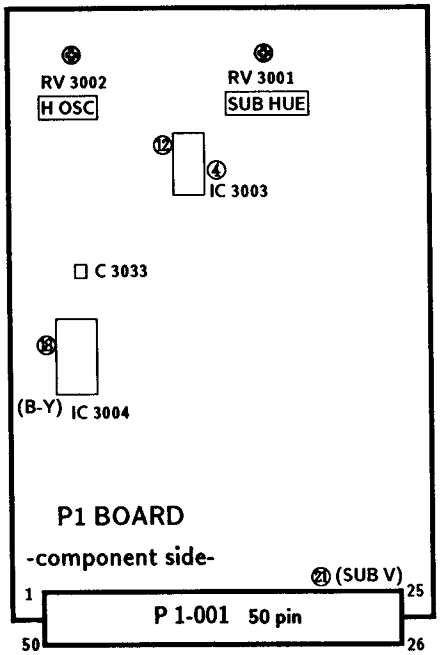
3) Select SEP and VD with 1 and 4 , adjust 3 and 6 so that a clear stereo sound is effected.

READ DELAY H/V (PHPO, PVPO)

1) Input a cross hatch signal.
2) Set to service mode.
3) Press P/P a display a window picture. (RIGHT LOWER Position)
4) Select PHPO, PVPO with 1 and 4.
5) Adjust 3 and 6 to the READ DELAY H/V.
6) Write the memory by pressing MUTING → then ENTER .

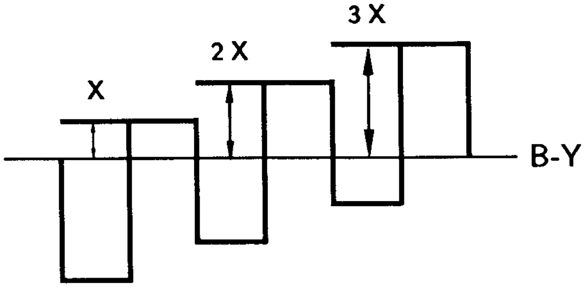


5-3. P1 BOARD ADJUSTMENTS


RV 3002
H OSC
RV 3001
SUB HUE
⑫
④
IC 3003
C 3033
⑱
(B-Y) IC 3004
P1 BOARD
-component side-
㉑ (SUB V)
1
25
P 1-001 50 pin
50
26

SUB HUE ADJUSTMENT (RV 3001)

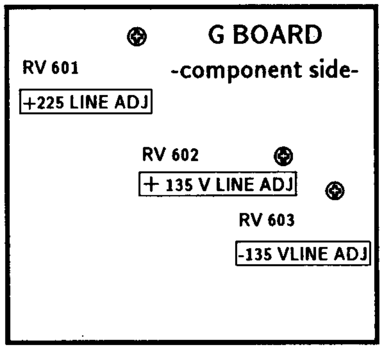
1) Set HUE and COLOR to the standard condition.
2) Make adjustment so that B-Y signal as shown to the right is obtained at the crossing point of R 3009 (0 Ω) and C 3033.
3) Supply the color bar signal of 75 IRE (white) at 2 Vpp to Pin 21 (SUB V) of P 1-001 and make adjustment by turning RV 3001.



H. FREQUENCY (H OSC) ADJUSTMENT (RV-3002)

1) Connect a frequency counter to Pin ④ (H OUT) of IC 3003.
2) Connect Pin ⑫ of IC 3003 to ground.
3) Adjust RV3002 for a frequency of 15.734 kHz ± 50 Hz at Pin ④ of IC 3003.
(or until the frequency comes to a standstill.)

5-4. G BOARD ADJUSTMENTS


G BOARD
-component side-
RV 601
+225 LINE ADJ
RV 602
+ 135 V LINE ADJ
RV 603
-135 VLINE ADJ

+225 V LINE ADJUSTMENT (RV 601)

1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q 604.
3. Adjust RV 601 so that voltage is +225 V±0.5 V.

+135 V LINE ADJUSTMENT (RV 602)

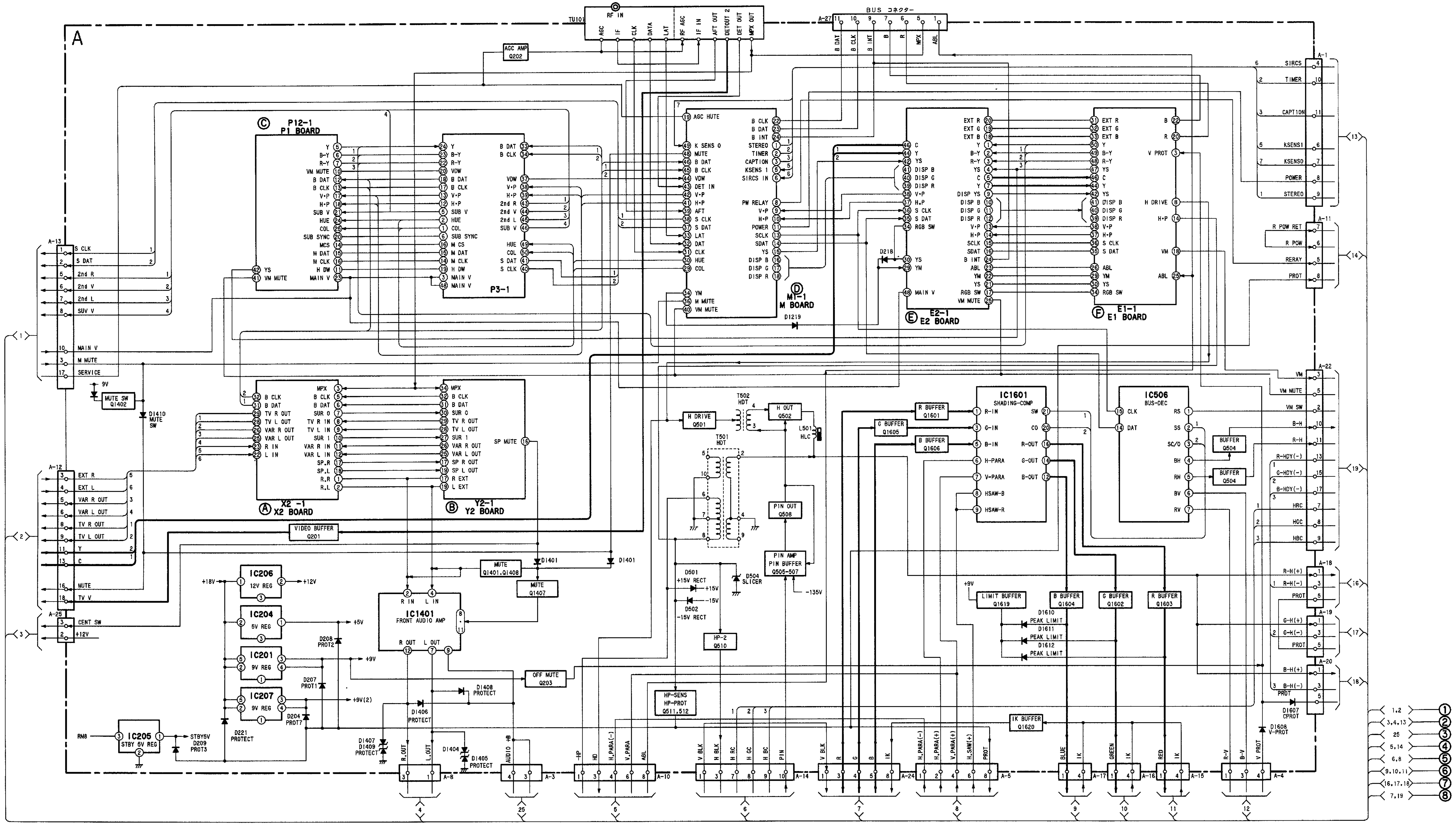
1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q 601.
3. Adjust RV 602 so that voltage is +135 V±1.0 V.

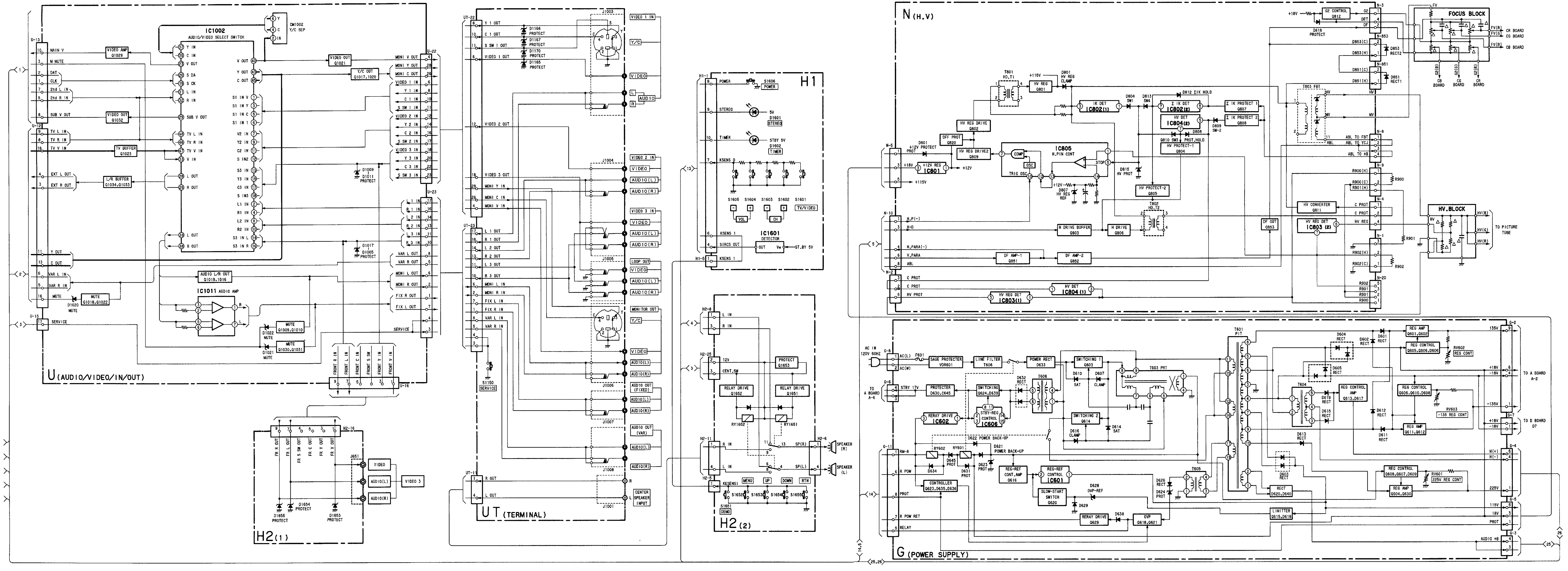
—135 V LINE ADJUSTMENT (RV 603)

1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q 612.
3. Adjust RV 603 so that voltage is -135 V±0.1 V.

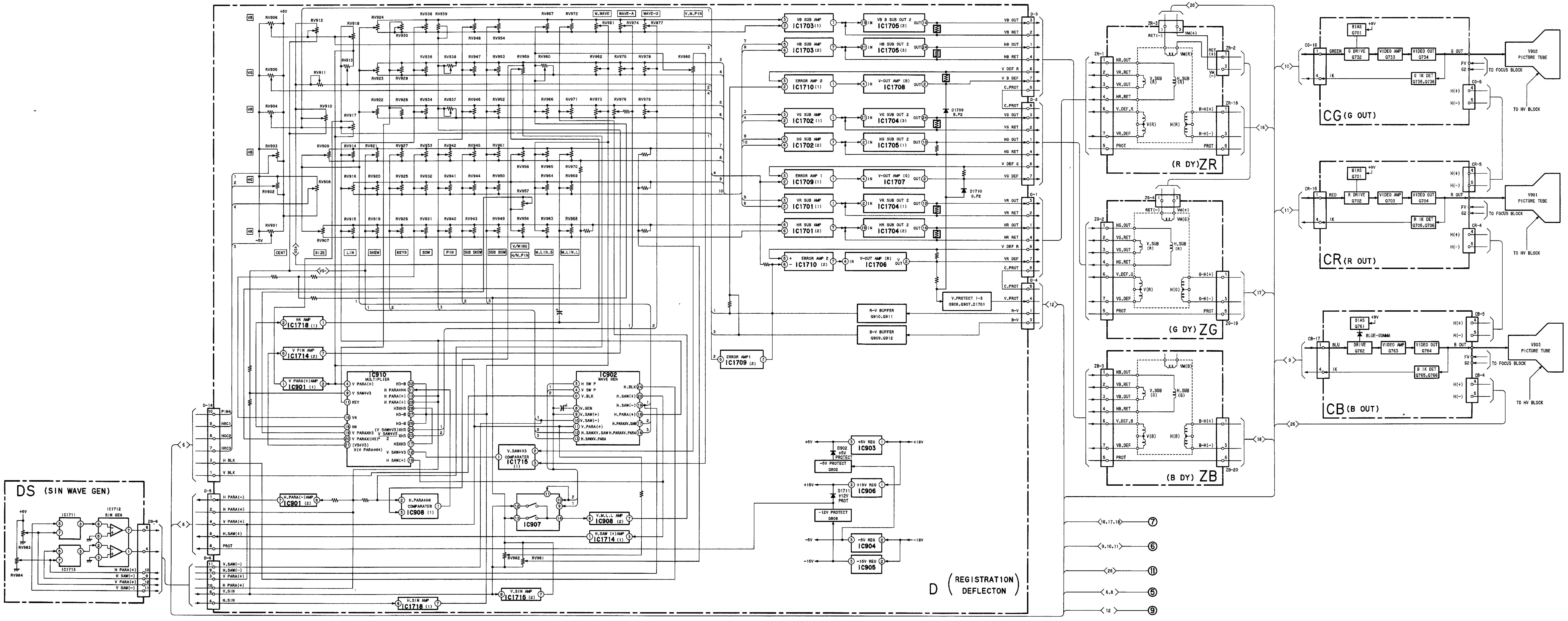
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAMS

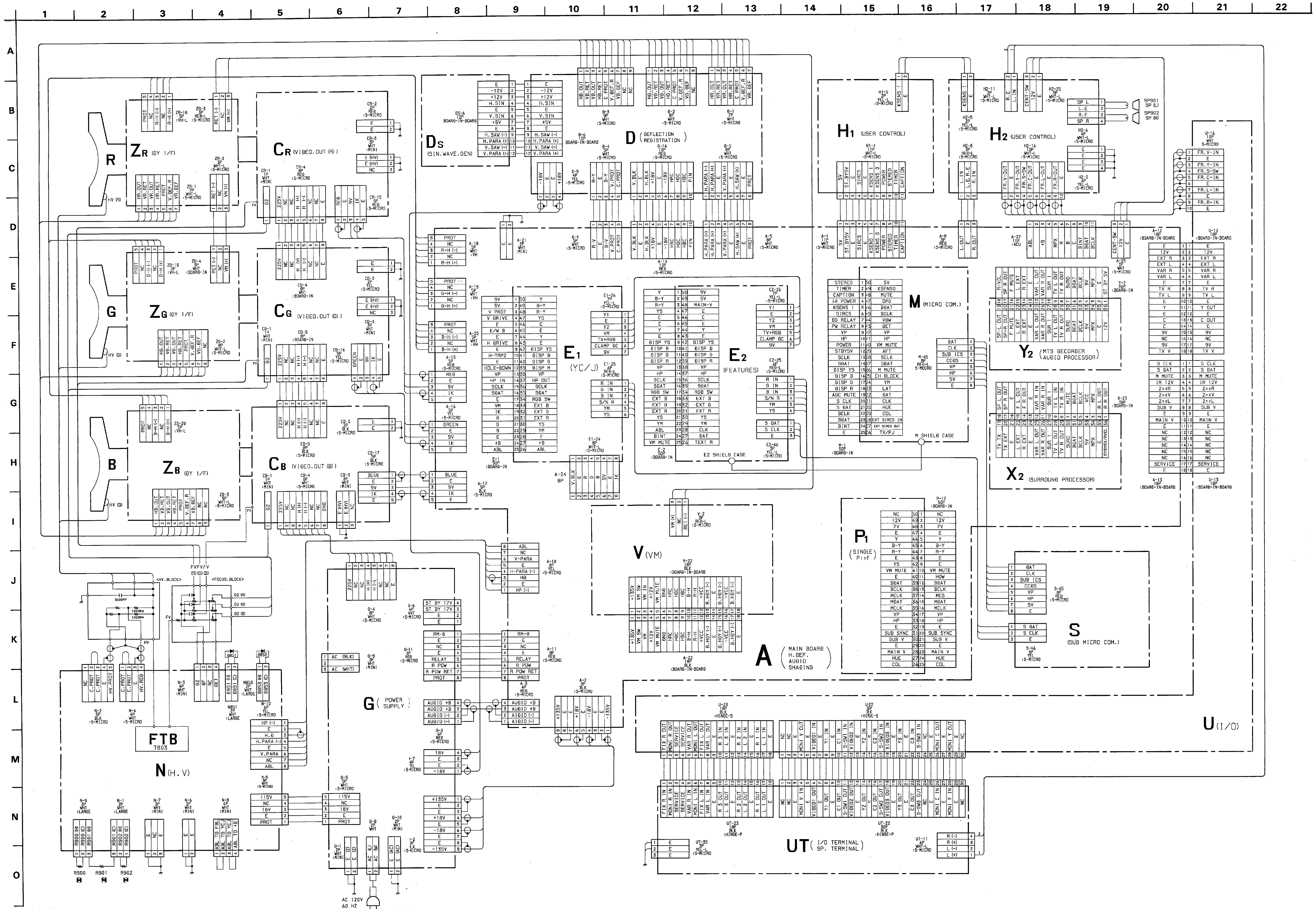

A
TU101
RF IN
AGC
IF
CLK
DATA
LAT
RF AGC
AFT OUT
DETOUT 2
DET OUT
MPX OUT
AGC AMP
Q202
BUS コネクター
A-27
B DAT
B CLK
B INT
MPX
ABL
Ⓒ P12-1 P1 BOARD
P3-1
Ⓓ M1-1 M BOARD
Ⓔ E2-1 E2 BOARD
Ⓕ E1-1 E1 BOARD
Ⓐ X2-1 X2 BOARD
Ⓑ Y2-1 Y2 BOARD
A-13
S CLK
S DAT
2nd R
2nd V
2nd L
SUV V
MAIN V
M MUTE
SERVICE
MUTE SW
Q1402
D1410 MUTE SW
A-12
EXT R
EXT L
VAR R OUT
VAR L OUT
TV R OUT
TV L OUT
Y
C
MUTE
TV V
A-25
CENT SW
+12V
VIDEO BUFFER
Q201
MUTE
Q1401,Q1408
MUTE
Q1407
D1401
IC206
12V REG
IC204
5V REG
IC201
9V REG
IC207
9V REG
IC205
STBY 5V REG
IC1401
FRONT AUDIO AMP
OFF MUTE
Q203
D1408 PROTECT
D1406 PROTECT
D1407 D1409 PROTECT
D1404
D1405 PROTECT
D208 PROT2
D207 PROT1
D204 PROT7
D221 PROTECT
D209 PROT3
H DRIVE
Q501
T502 HDT
H OUT
Q502
L501 HLC
T501 HDT
PIN OUT
Q508
PIN AMP
PIN BUFFER
Q505-507
D601 +15V RECT
D502 -15V RECT
D504 SLICER
HP-2
Q510
HP-SENS
HP-PROT
Q511,512
D1219
D218
R BUFFER
Q1601
G BUFFER
Q1605
B BUFFER
Q1606
IC1601
SHADING-COMP
IC506
BUS-DEC
BUFFER
Q504
LIMIT BUFFER
Q1619
B BUFFER
Q1604
G BUFFER
Q1602
R BUFFER
Q1603
D1610 PEAK LIMIT
D1611 PEAK LIMIT
D1612 PEAK LIMIT
IK BUFFER
Q1620
D1607 CPROT
D1608 V-PROT
A-1
SIRCS
TIMER
CAPTION
KSENS1
KSENSO
POWER
STEREO
A-11
R POW RET
R POW
RERAY
PROT
A-22
VM
VM MUTE
VM SW
B-H
R-H
R-HDY(-)
G-HDY(-)
B-HDY(-)
HRC
HGC
HBC
A-18
R-H(+)
R-H(-)
A-19
G-H(+)
G-H(-)
A-20
B-H(+)
B-H(-)
A-8
A-3
A-10
A-14
A-24
A-5
A-17
A-16
A-15
A-4
R.OUT
L.OUT
AUDIO +B
HP
HD
H.PARA(-)
V.PARA
ABL
V BLK
H BLK
H RC
H GC
H BC
PIN
V BLK
R
G
B
IK
H.PARA(-)
H.PARA(+)
V.PARA(+)
H.SAW(+)
PROT
BLUE
GREEN
RED
R-V
B-V
V PROT
1,2 ①
3,4,13 ②
25 ③
5,14 ④
6,8 ⑤
9,10,11 ⑥
16,17,18 ⑦
7,19 ⑧


U (AUDIO/VIDEO/IN/OUT)
IC1002 AUDIO/VIDEO SELECT SWITCH
IC1011 AUDIO AMP
CM1002 Y/C SEP
UT (TERMINAL)
H1
IC1601 DETECTOR
H2(1)
H2(2)
N (H.V)
IC805 H.PIN CONT
IC801
IC802(1)
IC802(2)
IC803(1)
IC803(2)
IC804(1)
IC804(2)
FOCUS BLOCK
HV.BLOCK
TO PICTURE TUBE
G (POWER SUPPLY)
IC601
IC602
IC606
T601 PIT
AC IN 120V 60HZ
TO A BOARD A-2
TO D BOARD D7
① 1,2
② 3,4,13
④ 5,14
⑪ 26
③ 25

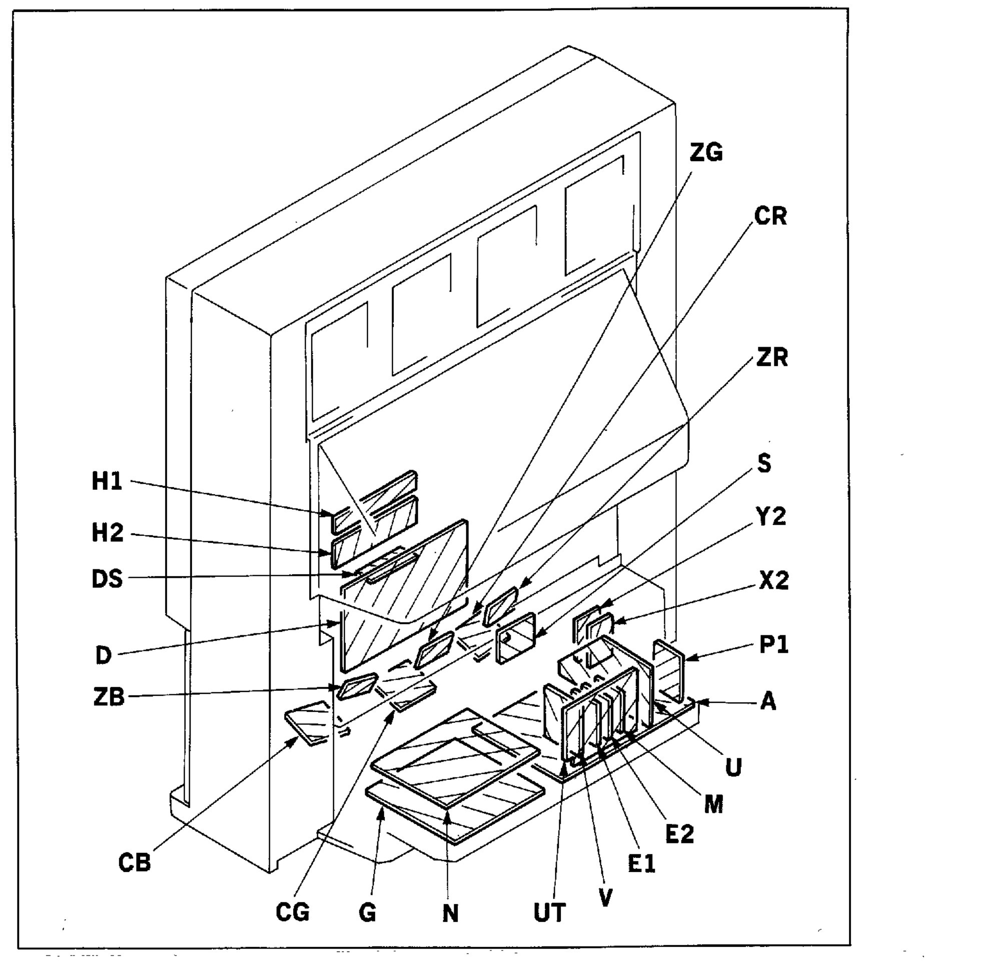
X2 (SRS SURROUND)
IC2501 D-SERVO CONT
IC2502 IRS MICROCOMPUTER
IC2503 AUT-CONTROL
IC2505 AUT-CONTROL
IC2506 AUDIO AMP
IC2506 SWITCHER
IC2507 COMPARATOR
IC2508 SOM AMP
BUFFER Q2501
D2501
D2502 PROTECT
D2503 PROTECT
J2501
A BOARD X23-1 Ⓐ
V (VM)
IC1551 R,CENT(H)
IC1552 G,B CENT(H)
R DRIVE Q1551,1552
G DRIVE Q1555,1556
B DRIVE Q1553,1554
Y-HPF Q1504
D1502 LEVEL SHIFT
VM AMP 1,2,3 Q1505,1506,1507
VM BUFFER Q1508
VM DRIVE OUTPUT Q1501,1502
MUTE Q1503
D1509 BUS-SW
A BOARD E1-1 Ⓕ
E1 (Y/C JANGLE)
IC302 (1) Y/C JUNGLE
IC302 (2)
IC301 TV
IC303 AFC Q329 VANG Q330 V BOW
INVERTER Q326
C BUFFER Q310,321,344
Y BUFFER Q306
Y BUFFER/CLAMP Q301-304
VM Q340-342-OL302
BUFFER Q334
VP INV Q327
V BLK INV Q323
H BUFFER Q328
AFC OUTPUT Q335,316
R OUTPUT Q322
G OUTPUT Q324
B OUTPUT Q325
INVERTER Q317
H SYNC SEP Q333,Q335
V.SW,IN DET Q307-309
X301 3.58MHz
A BOARD P12-1 Ⓒ
P1 (P-IN-P)
IC3005 PINP PROCESSER (D/A MEMORY)
IC3004 A/D CONVERTOR
IC3007 PLL
IC3001 COLOR DECORDER
IC3003 HP VP-COMBINATION
IC3002 MONO MULTI
IC3006 5V REG
IC3008 5V REG
Y BUFFER B-Y BUFFER R-Y BUFFER Q3007 Q3009 Q3010
VM BUFF Q3001
YS OUT Q3006
H PULSE BUFFER Q3010
VIDEO BUFFER Q3008
Y BUFFER Q3003
Y BUFFER Q3004
RV3001 SUB HUE
RV302 HOSC
X3001 3.58MHz
V PULSE SW Q3012,3013
A BOARD E2-1 Ⓔ
E2 (SHARPNESS CONTROL CHARACTOR GENERATER)
R-G-B SLICE/BUFFER/AMP/GAIN/CLAMP Q2328,2329,2339,2340 Q2330,Q2341
R-G-B BUFFER Q2306-2308
IC2306 R-G-B SWITCH
R-G-B CLAMP Q2320-2322
YS OUTPUT/SWITCH Q2301-2303-2304-Q2337
IC2307 SUB D/A DAT CONVERTOR
YM SWITCH/BUFFER/OUTPUT Q2324-2309
IC2301 IC2303 CHA-GEN BRT-CONT
X2301 4MHz
R-G-B BUFFER/OUTPUT YS SWITCH Q2310-2315 Q2317-2319
VM BUFFER Q2326
IC2304 SHARPNESS CONTROL
Y BUFFER Q2327
VM SW Q2330
D2313
A BOARD Y2-1 Ⓑ
Y2 (MTS DECORD AUDIO CONT)
IC404 MTS-DECODE
IC404 ROM
IC406 D/A CONTROL
IC403 AUDIO AMP
IC407 BASS/TREBLE BOOST
SCL-SDA BUFFER Q409,Q410
BUFFER Q405
BUFFER Q404
S (SUB CONTROL)
IC3401 RESET
IC3402 SUB CONTROL MICROCOMPUTER
X3401
A BOARD MI-1 Ⓓ
M (MAINCONTROL)
IC001 MICROCOMPUTER
MUTE Q014
V PULSE Q005
H PULSE Q009
MUTE Q009
D009
D010 CHP,POSI
X001 8MHz
CLK REV Q013
DAT SW Q011
H SYNC Q011
IC002 RESET
SIRCS1-5,8 Q002-Q004 Q006-Q008
D004 CLAMP
⑧ 7,19
⑪ 20


DS (SIN WAVE GEN)
IC1711
IC1712 SIN GEN
IC1713
RV983
RV984
D (REGISTRATION DEFLECTON)
IC910 MULTIPLIER
IC902 WAVE GEN
IC1718 H4 AMP
IC1714 V PIN AMP
IC901 V PARA(+)AMP
IC901 H.PARA(-)AMP
IC908 H.PARA+H4 COMPARATER
IC907
IC908 V.M.L.L AMP
IC1714 H.SAW(+)AMP
IC1715 V.SAW+V3 COMPARATER
IC1715 V.SIN AMP
IC1718 H.SIN AMP
IC1709 ERROR AMP1
IC1703 VB SUB AMP
IC1703 HB SUB AMP
IC1705 VB B SUB OUT 2
IC1705 HB SUB OUT 2
IC1710 ERROR AMP 2
IC1708 V-OUT AMP (B)
IC1702 VG SUB AMP
IC1704 VG SUB OUT 2
IC1702 HG SUB AMP
IC1705 HG SUB OUT 2
IC1709 ERROR AMP 1
IC1707 V-OUT AMP (G)
IC1701 VR SUB AMP
IC1704 VR SUB OUT 2
IC1701 HR SUB AMP
IC1704 HR SUB OUT 2
IC1710 ERROR AMP 2
IC1706 V-OUT AMP (R)
V.PROTECT 1-3 Q906,Q907,D1701
R-V BUFFER Q910,Q911
B-V BUFFER Q909,Q912
IC903 +5V REG
IC906 +15V REG
IC904 -5V REG
IC905 -15V REG
-5V PROTECT Q902
-12V PROTECT Q908
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
V/WING
H/W.PIN
M.LIN.S
M.LIN.L
M.WAVE
WAVE-A
WAVE-U
V.W.PIN
(R DY) ZR
(G DY) ZG
(B DY) ZB
CG (G OUT)
CR (R OUT)
CB (B OUT)
G DRIVE Q732
VIDEO AMP Q733
VIDEO OUT Q734
G IK DET Q735,Q736
R DRIVE Q702
VIDEO AMP Q703
VIDEO OUT Q704
R IK DET Q705,Q706
DRIVE Q762
VIDEO AMP Q763
VIDEO OUT Q764
B IK DET Q765,Q766
BIAS Q701
BIAS Q731
BIAS Q761
V902 PICTURE TUBE
V901 PICTURE TUBE
V903 PICTURE TUBE
TO FOCUS BLOCK
TO HV BLOCK

6-2. FRAME SCHEMATIC DIAGRAM


R
ZR (BY 1/F)
CR (VIDEO.OUT (R))
G
ZG (BY 1/F)
CG (VIDEO.OUT (G))
B
ZB (BY 1/F)
CB (VIDEO.OUT (B))
DS (SIN.WAVE.GEN)
D (DEFLECTION / REGISTRATION)
H1 (USER CONTROL)
H2 (USER CONTROL)
E1 (YC/J)
E2 (FEATURES)
M (MICRO COM.)
Y2 (MTS DECORDER / AUDIO PROCESSOR)
X2 (SURROUND PROCESSOR)
V (VM)
P1 (SINGLE P in P)
S (SUB MICRO COM.)
A (MAIN BOARD / H.DEF. / AUDIO / SHADING)
U (I/O)
UT (I/O TERMINAL / SP. TERMINAL)
G (POWER SUPPLY)
N (H.V)
FTB
T803
R900
R901
R902
AC 120V 60 HZ
SP901 SP (L)
SP902 SP (R)

6-3. CIRCUIT BOARDS LOCATION


ZG
CR
ZR
H1
H2
DS
D
ZB
S
Y2
X2
P1
A
U
M
E2
E1
CB
CG
G
N
UT
V

6-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in uF unless otherwise noted. pF: $\mu\mu$F 50WV or less are not indicated except for electrolytic and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms.
  kΩ=1000Ω, MΩ=1000kΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm
Rating electrical power 1/4W

- Chips resistors are 1/10W.
- ▭ : nonflammable resistor.
- △ : internal component.
- ☐ : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⊥ : earth-chassis.
- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⊠ and repeat the adjustment until the specified value is achieved.
  (Refer to R652, R852, R900, R901, and R902 adjustment on page 56-59)
  When replacing the part in below table, be sure to parform the related adjustment.

Part replaced (◪)	Adjustment (⊠)
HV Block IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834, R835, R836, R864, R865, R866, R902 } N Board	HV Regurater (R902)
HV Block IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R829, R826, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901 } N Board	HV Hold down (R900, R901)
Q618, Q621, D628, C634, R639, R649, R652, R655, R656 } G Board	OVP (R652)
① IC802, Q805, Q807, D811, D812, C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881 } N Board ② IC804, Q804, Q808, D808, D809, C809, C828, C829, C830, C831, R807, R839, R840, R841, R847, R848, R849, R850, R851, R852, R855, R856, R857, R881 } N Board	Beme current protecter ① R852 ② R852

Reference information

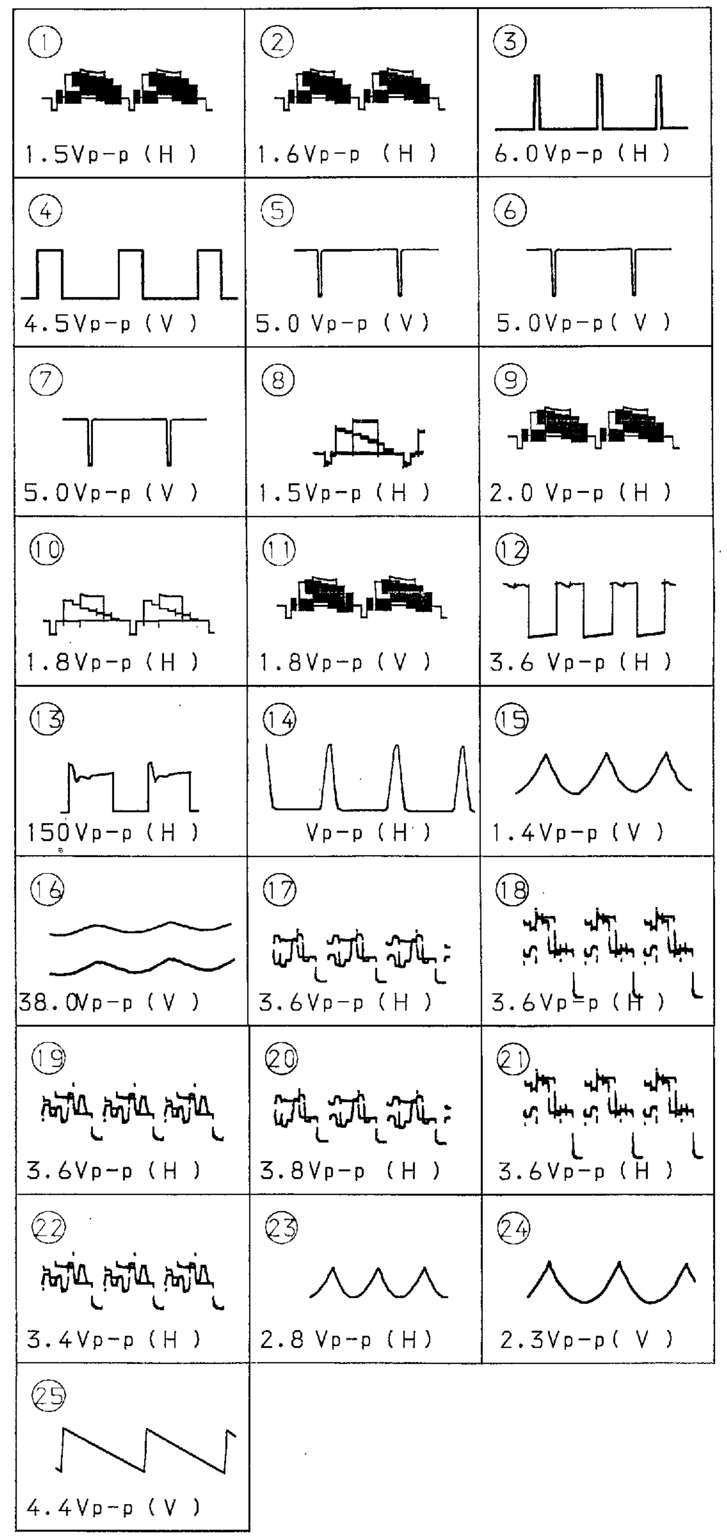
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a color-bar signal input.
- Reading are taken with a 10 MΩ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circuled numbers are waveform references.
- ━━ : B+ bus.
- ━ ━ ━ : B− bus.
- ⇨ : signal path.

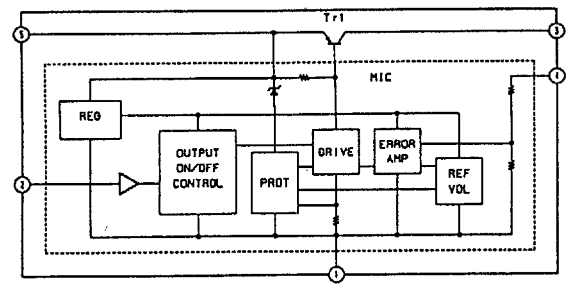
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

— A Board —

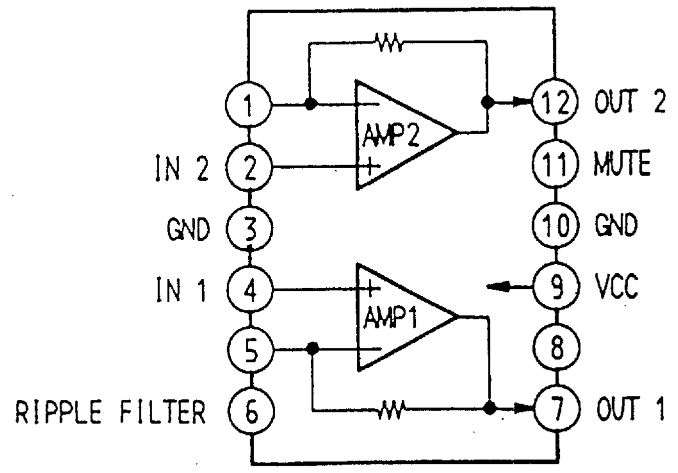


A Board IC201, 207 SI-3090CA

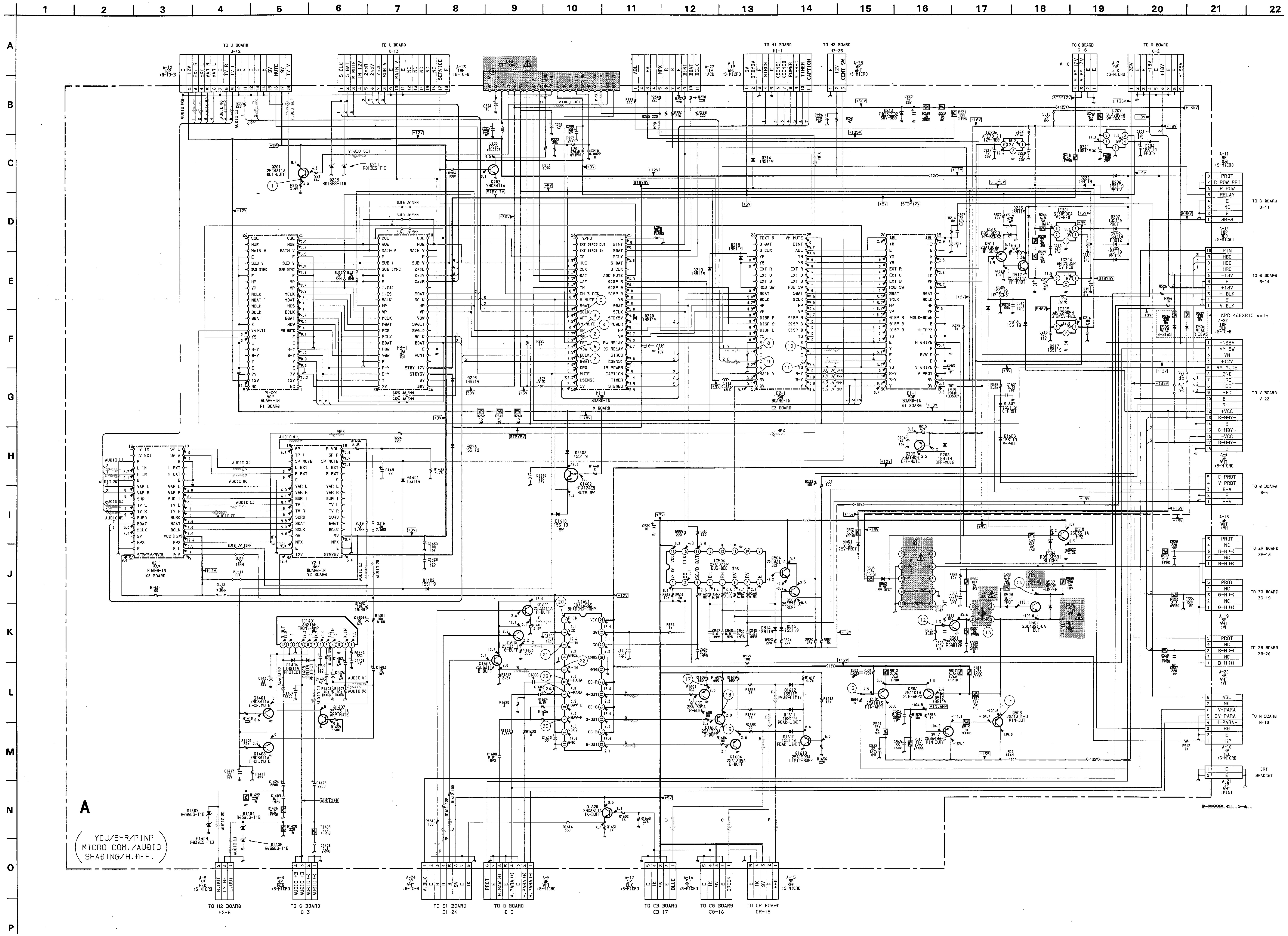


Tr1
MIC
REG
OUTPUT ON/OFF CONTROL
PROT
DRIVE
ERROR AMP
REF VOL

A Board IC1401 TA8216H



1
IN 2 2
GND 3
IN 1 4
5
RIPPLE FILTER 6
AMP2
AMP1
12 OUT 2
11 MUTE
10 GND
9 VCC
8
7 OUT 1

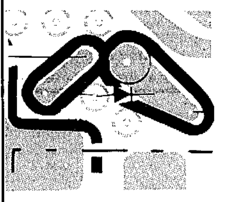


A
YCJ/SHR/PINP
MICRO COM./AUDIO
SHADING/H.DEF.
TO U BOARD U-12
TO U BOARD U-13
TO H1 BOARD H1-1
TO H2 BOARD H2-25
TO G BOARD G-6
TO G BOARD G-11
TO D BOARD D-14
TO V BOARD V-22
TO B BOARD B-4
TO ZR BOARD ZR-18
TO ZG BOARD ZG-19
TO ZB BOARD ZB-20
TO N BOARD N-10
CRT BRACKET
TO H2 BOARD H2-8
TO G BOARD G-3
TO E1 BOARD E1-24
TO D BOARD D-5
TO CB BOARD CB-17
TO CG BOARD CG-16
TO CR BOARD CR-15
P1 BOARD
X2 BOARD
Y2 BOARD
M BOARD
E2 BOARD
E1 BOARD
IC1401 TA8216H FRONT-AMP
IC1601 TA1232S SHADING-COMP.
Q1620 2SC3311A IK-BUFF
Q1408 2SC3311A R-CH.MUTE
D1407 RD39ES-T1B
D1409 RD39ES-T1B
D1404 RD39ES-T1B
D1405 RD39ES-T1B
AUDIO+B
+9V
A-8 3P RED :S-MICRO
A-3 4P RED :S-MICRO
A-24 8P WHT :B-TO-B
A-5 8P WHT :S-MICRO
A-17 5P BLK :S-MICRO
A-16 5P YEL :S-MICRO
A-15 5P RED :S-MICRO
R.OUT
LE RE
L.OUT
AUDIO +B
AUDIO +B
AUDIO (-)
AUDIO (-)
V.BLK
PROT
H.SAW (+)
V.PARA (+)
H.PARA (+)
H.PARA (-)
BLUE
GREEN
RED
B-55333.<U..>-A..

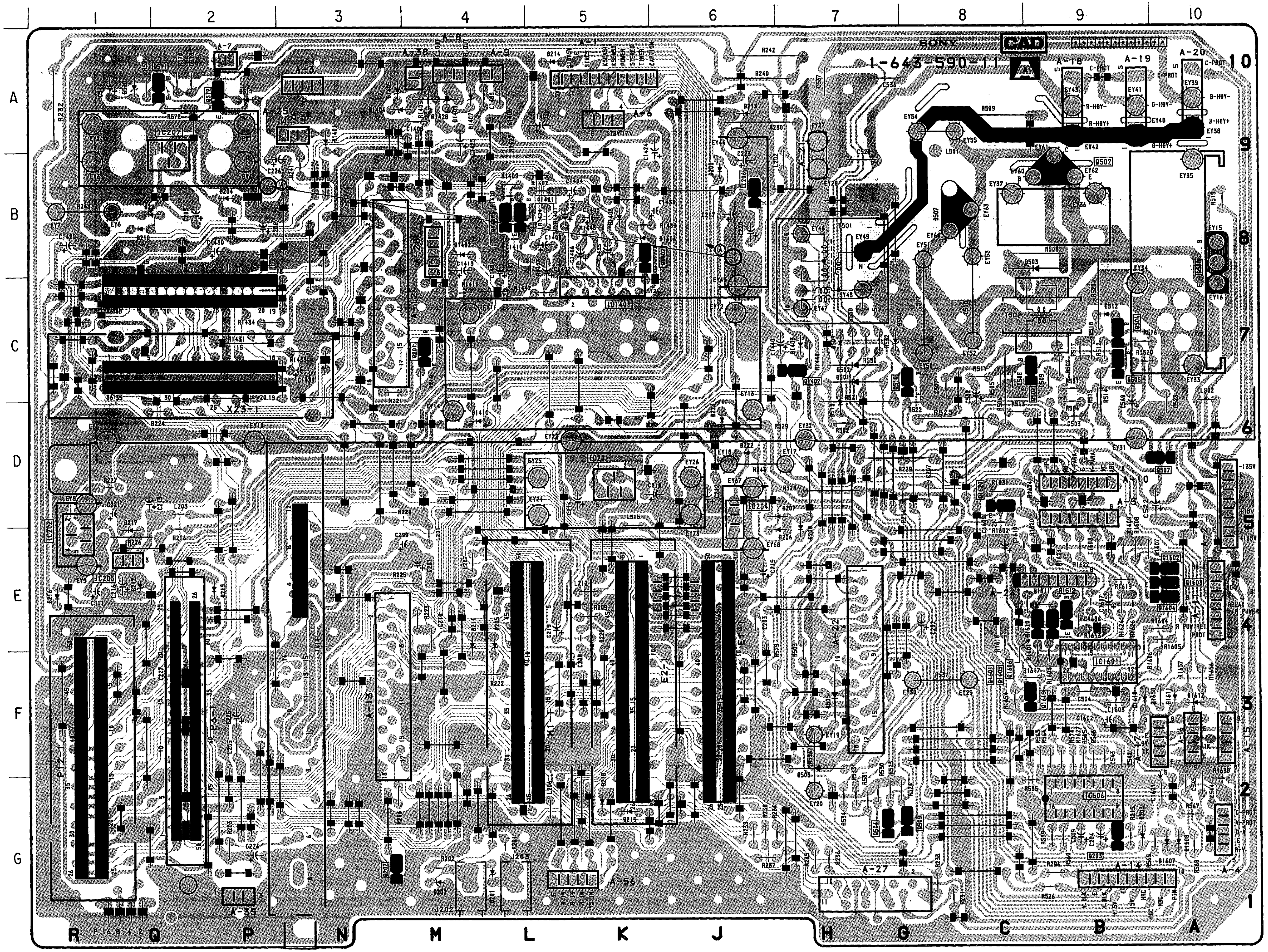
KPR-46EXR15/53EXR15
RM-Y112

A [YCJ/SHR/PINP, MICRO COM./AUDIO, SHADING, H. DEF]

— A Board —



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.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7
8
9
10
A
B
C
D
E
F
G
SONY
CAD
1-643-590-11
A
A-7
A-3
A-8
A-9
A-1
A-6
A-18
A-19
A-20
A-27
A-14
A-56
A-35
A-4
A-15
A-22
A-13
IC207
IC1401
IC201
IC204
IC202
IC205
IC1601
IC506
X23-1
P12-1
P3-1
M1
E2
T502
L501
L502
R-HBY-
R-HBY+
G-HBY-
G-HBY+
B-HBY-
B-HBY+
C-PROT
-135V
+135V
R
Q
P
N
M
L
K
J
H
G
C
B
A

— A Board —

IC	
IC201	D-5
IC204	D-6
IC205	E-1
IC206	B-6
IC207	A-2
IC506	G-9
IC1401	C-5
IC1601	F-9

TRANSISTOR	
Q201	C-4
Q202	G-3
Q203	G-9
Q501	C-9
Q502	B-9
Q504	G-7
Q505	C-9
Q506	C-9
Q507	D-10
Q508	B-10
Q509	G-8
Q510	C-8
Q511	A-2
Q512	A-2
Q1401	B-4
Q1402	C-7
Q1407	B-5
Q1408	B-4
Q1601	E-9
Q1602	E-10
Q1603	E-10
Q1604	E-10
Q1605	E-9
Q1606	E-9
Q1619	F-9
Q1620	D-8

DIODE	
D203	G-9
D204	B-2
D205	E-4
D206	E-7
D207	D-7
D208	E-7
D209	B-6
D211	E-4
D213	A-6
D214	A-5
D215	E-2
D216	E-1
D217	E-1
D218	G-5
D219	G-5
D220	E-5
D501	C-7
D502	C-7
D503	B-9
D504	C-7
D505	F-7
D506	F-7
D507	B-8
D509	C-7
D510	A-1
D511	A-2
D512	C-9
D513	D-7
D1401	A-3
D1402	B-4
D1403	C-7
D1404	A-4
D1405	A-3
D1406	B-5
D1407	A-4
D1408	B-5
D1409	A-4
D1410	D-4
D1607	G-10
D1608	G-10
D1610	F-9
D1611	F-10
D1612	F-10

U [AUDIO IN/OUT, VIDEO IN/OUT]

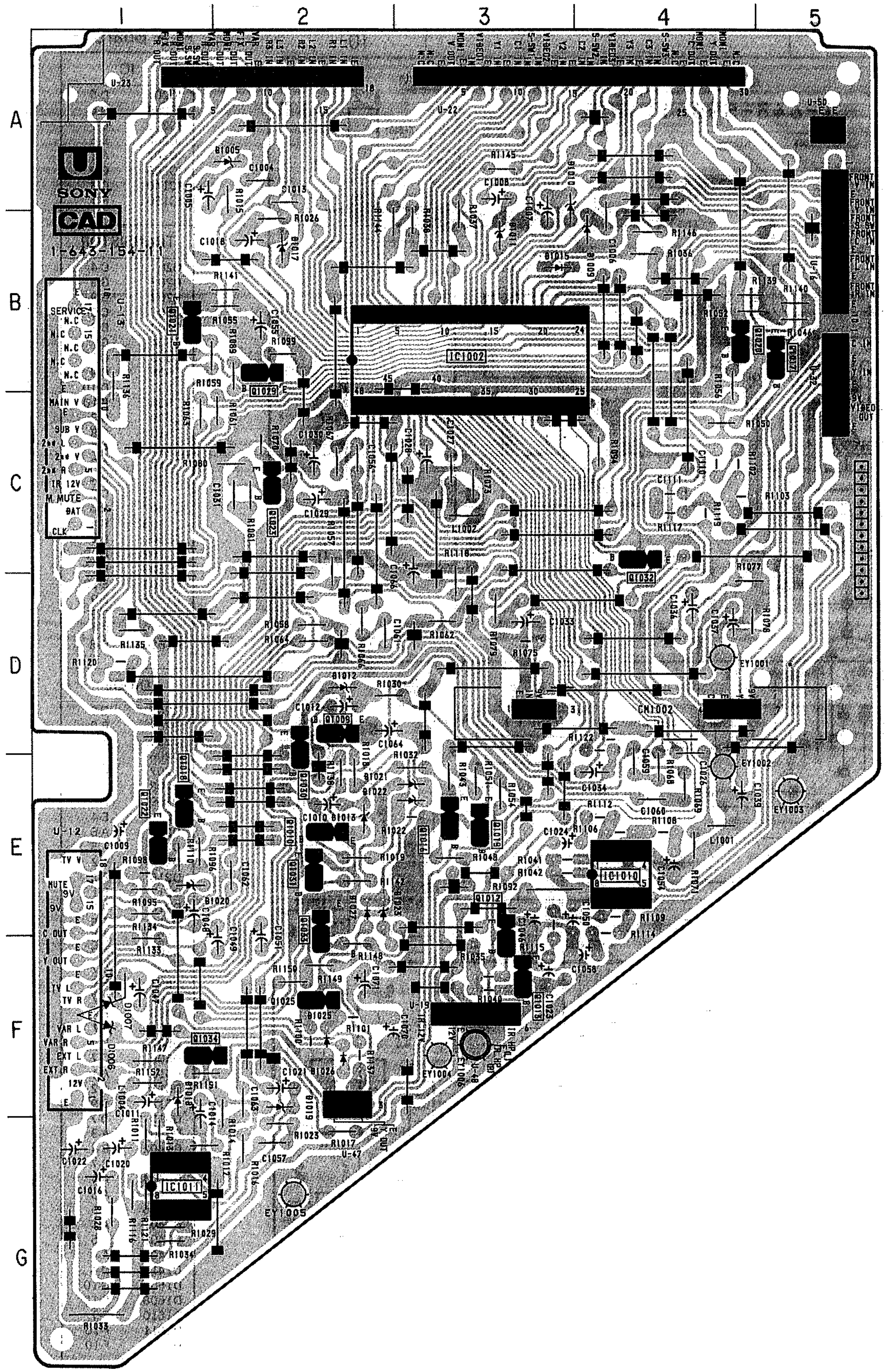
— U Board —

IC	
IC1002	B-3
IC1011	G-1

TRANSISTOR	
Q1009	D-2
Q1010	E-2
Q1016	E-3
Q1017	B-5
Q1018	E-1
Q1019	E-3
Q1020	B-4
Q1021	B-1
Q1022	E-1
Q1023	C-2
Q1029	B-2
Q1030	E-2
Q1031	E-2
Q1032	C-4
Q1033	E-2
Q1034	F-1

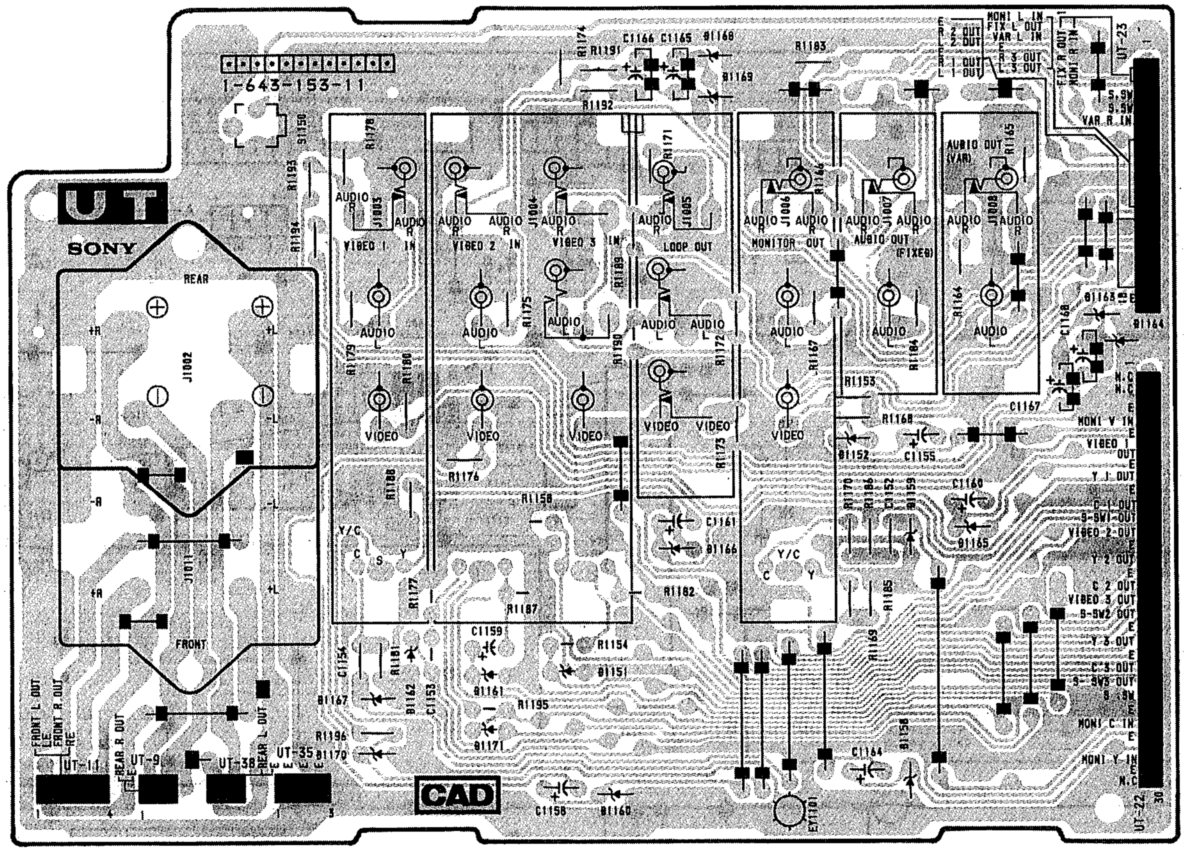
DIODE	
D1005	A-2
D1006	F-1
D1007	F-1
D1009	B-4
D1010	A-3
D1011	A-3
D1012	D-2
D1013	E-2
D1015	B-2
D1017	B-2
D1018	F-1
D1019	F-2
D1020	E-1
D1021	E-3
D1022	E-3

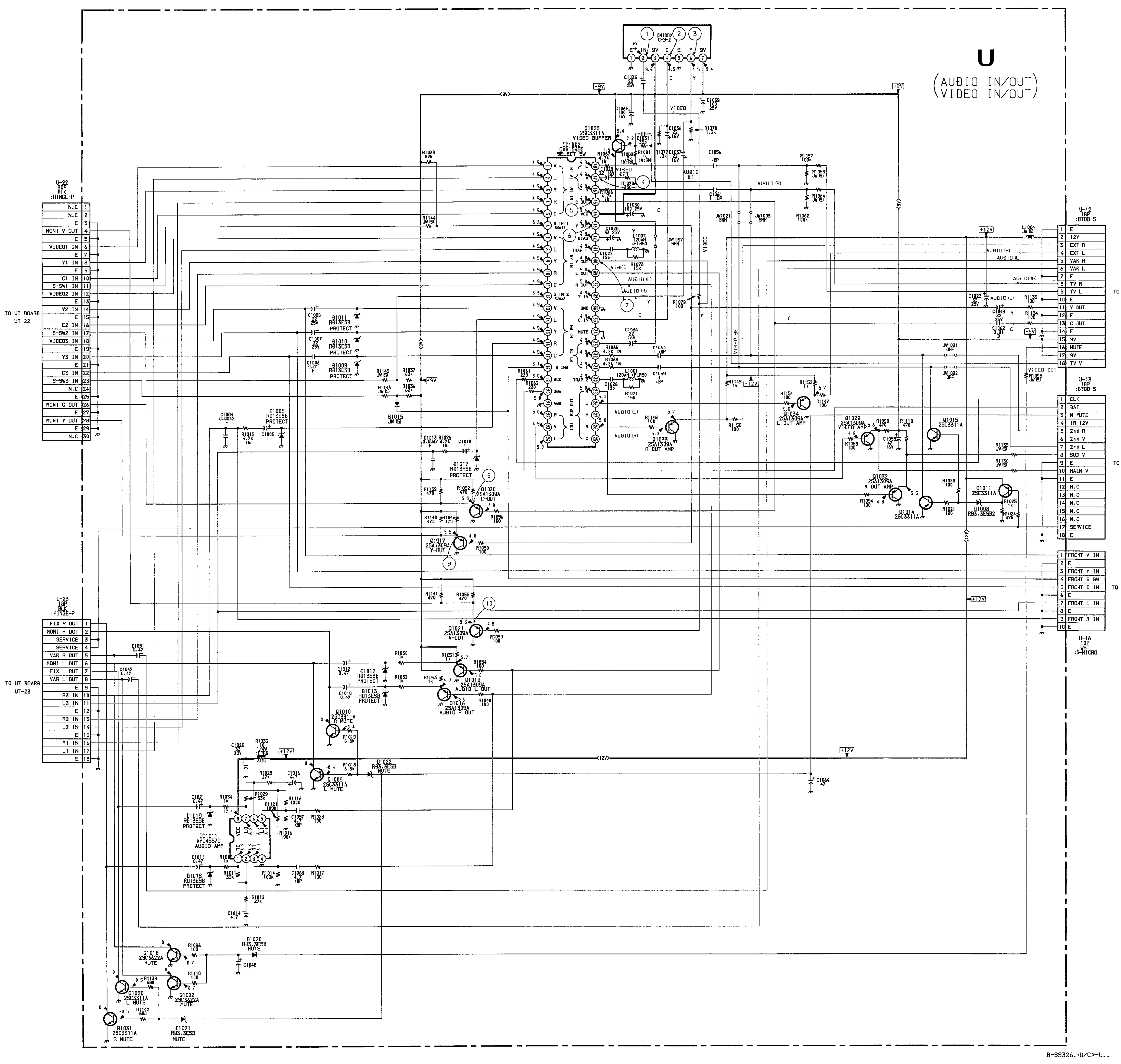
— U Board —


1
2
3
4
5
A
B
C
D
E
F
G
U
SONY
CAD
1-643-154-11
IC1002
IC1011
IC1010
CN1002
SERVICE
EY1001
EY1002
EY1003
EY1004
EY1005
U-23
U-22
U-12
U-42

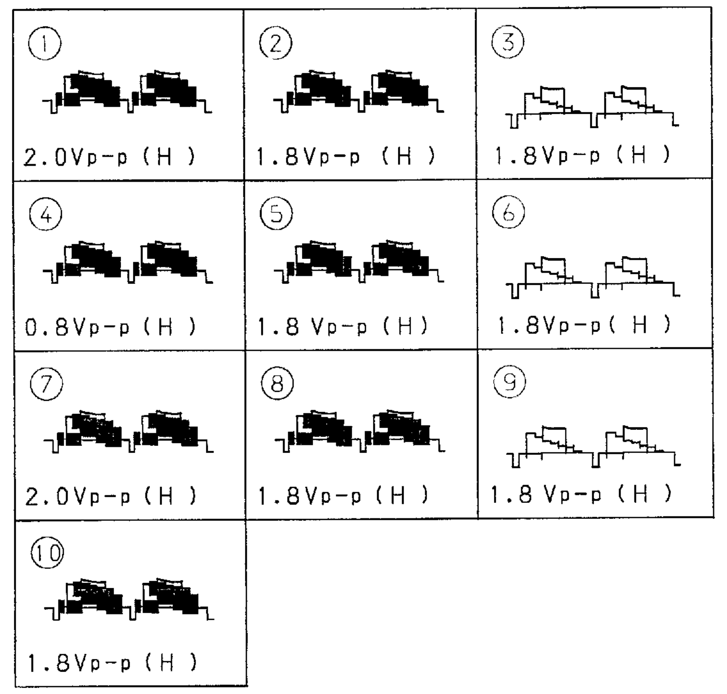
UT [IN/OUT TERMINAL, SP TERMINAL]

— UT Board —

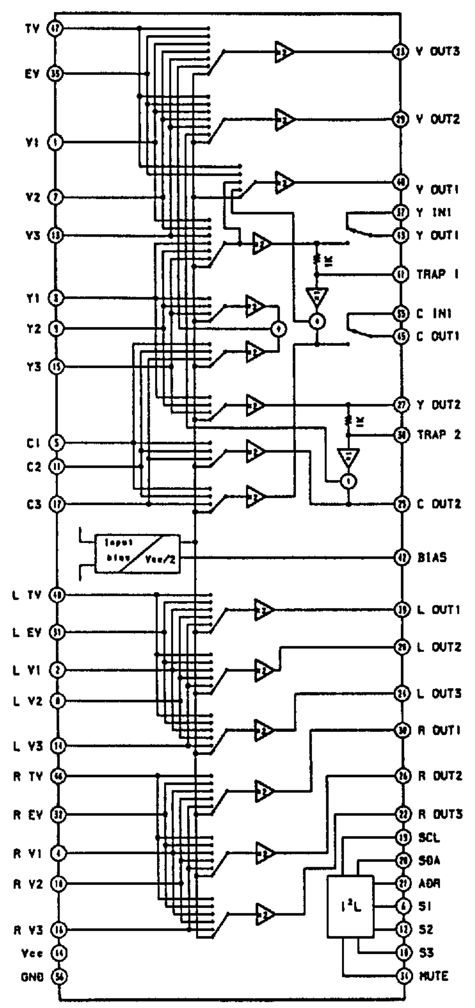

UT
SONY
CAD
1-643-153-11
REAR
FRONT
J1002
J1011
VIDEO 1 IN
VIDEO 2 IN
VIDEO 3 IN
LOOP OUT
MONITOR OUT
AUDIO OUT (FIXED)
AUDIO OUT (VAR)
AUDIO
VIDEO
Y/C
UT-11
UT-9
UT-38
UT-35
UT-23
UT-22
EY1101

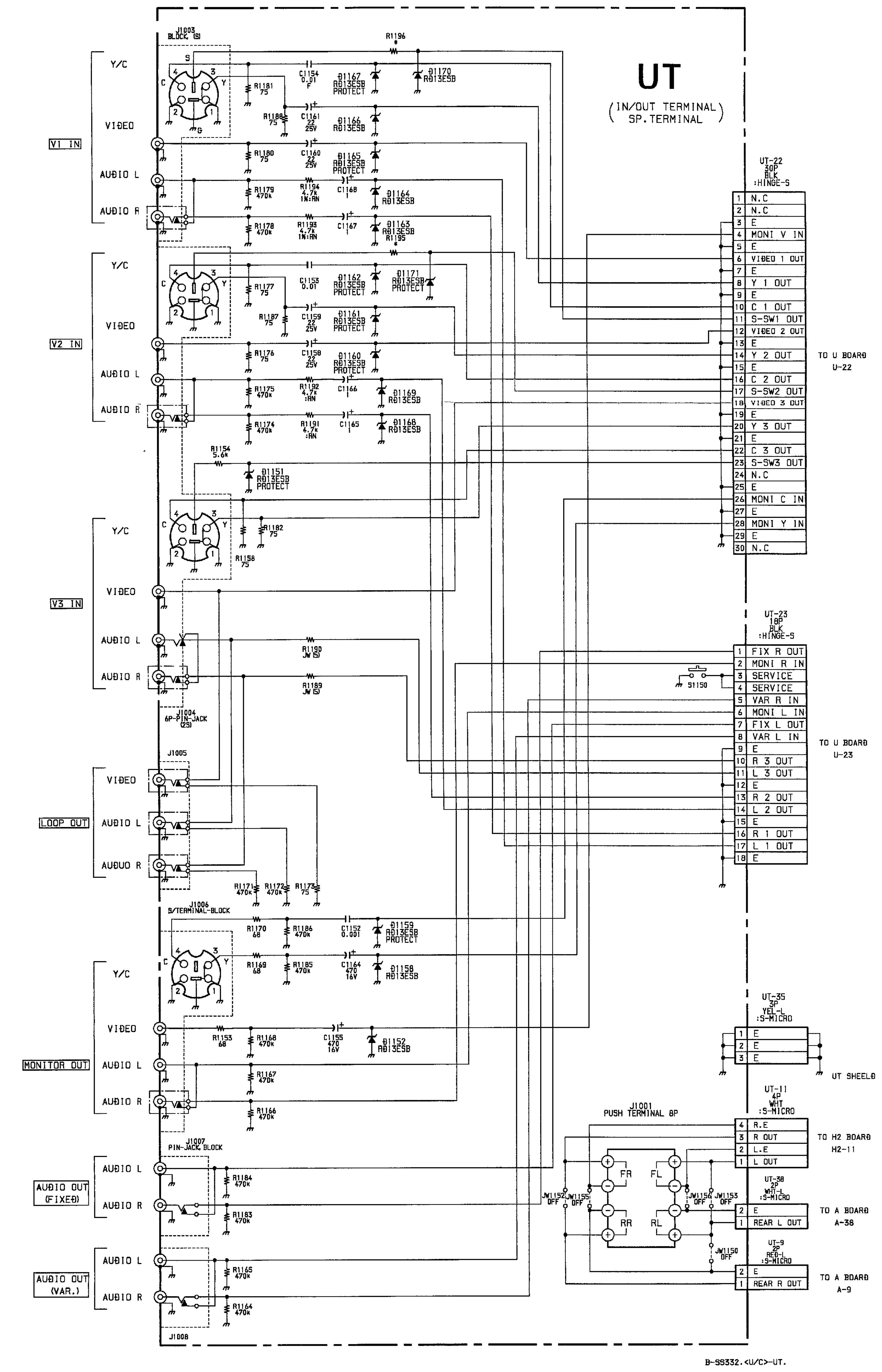

U
(AUDIO IN/OUT)
(VIDEO IN/OUT)
TO UT BOARD UT-22
TO UT BOARD UT-23
TO A BOARD A-12
TO A BOARD A-13
TO H2 BOARD H2-16
IC1002 CXA1545S SELECT SW
Q1023 2SC3311A VIDEO BUFFER
IC1011 APC4558C AUDIO AMP
Q1034 2SA1309A L OUT AMP
Q1035 2SA1309A R OUT AMP
Q1029 2SA1309A VIDEO AMP
Q1030 2SC3311A L MUTE
Q1031 2SC3311A R MUTE
Q1018 2SC3622A MUTE
Q1022 2SC3622A MUTE
B-SS326.<U/C>-U..

— U Board —

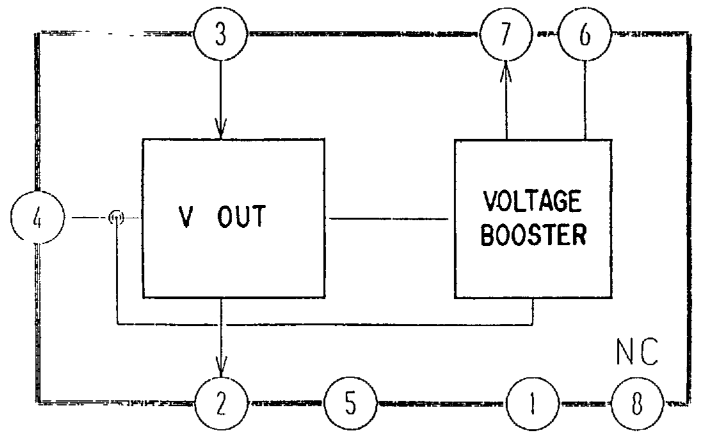

① 2.0Vp-p (H)
② 1.8Vp-p (H)
③ 1.8Vp-p (H)
④ 0.8Vp-p (H)
⑤ 1.8 Vp-p (H)
⑥ 1.8Vp-p (H)
⑦ 2.0Vp-p (H)
⑧ 1.8Vp-p (H)
⑨ 1.8 Vp-p (H)
⑩ 1.8Vp-p (H)

U Board IC1002 CXA1545S


TV
EV
Y1
Y2
Y3
C1
C2
C3
L TV
L EV
L Y1
L Y2
L Y3
R TV
R EV
R Y1
R Y2
R Y3
Vcc
GND
V OUT3
V OUT2
V OUT1
Y IN1
Y OUT1
TRAP 1
C IN1
C OUT1
Y OUT2
TRAP 2
C OUT2
BIAS
L OUT1
L OUT2
L OUT3
R OUT1
R OUT2
R OUT3
SCL
SDA
ADR
S1
S2
S3
MUTE

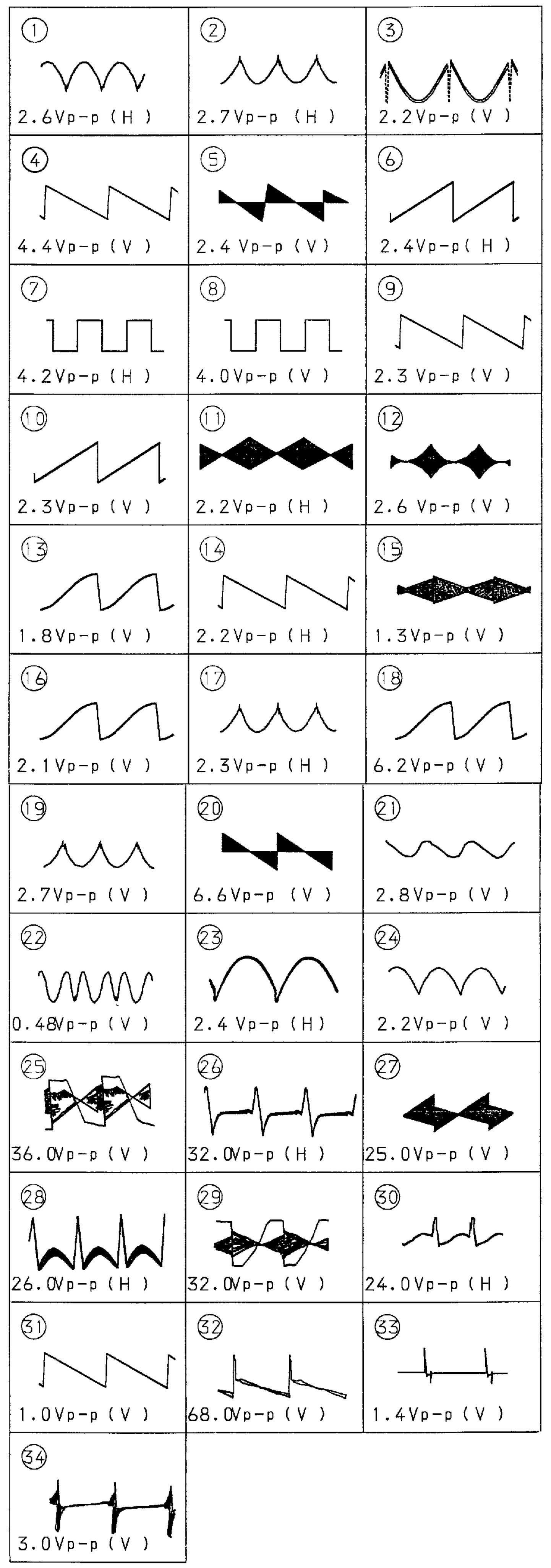

UT
(IN/OUT TERMINAL)
(SP.TERMINAL)
V1 IN
V2 IN
V3 IN
LOOP OUT
MONITOR OUT
AUDIO OUT (FIXED)
AUDIO OUT (VAR.)
Y/C
VIDEO
AUDIO L
AUDIO R
TO U BOARD U-22
TO U BOARD U-23
TO H2 BOARD H2-11
TO A BOARD A-36
TO A BOARD A-9
UT SHIELD
J1001 PUSH TERMINAL 8P
FR
FL
RR
RL
B-SS332.<U/C>-UT.

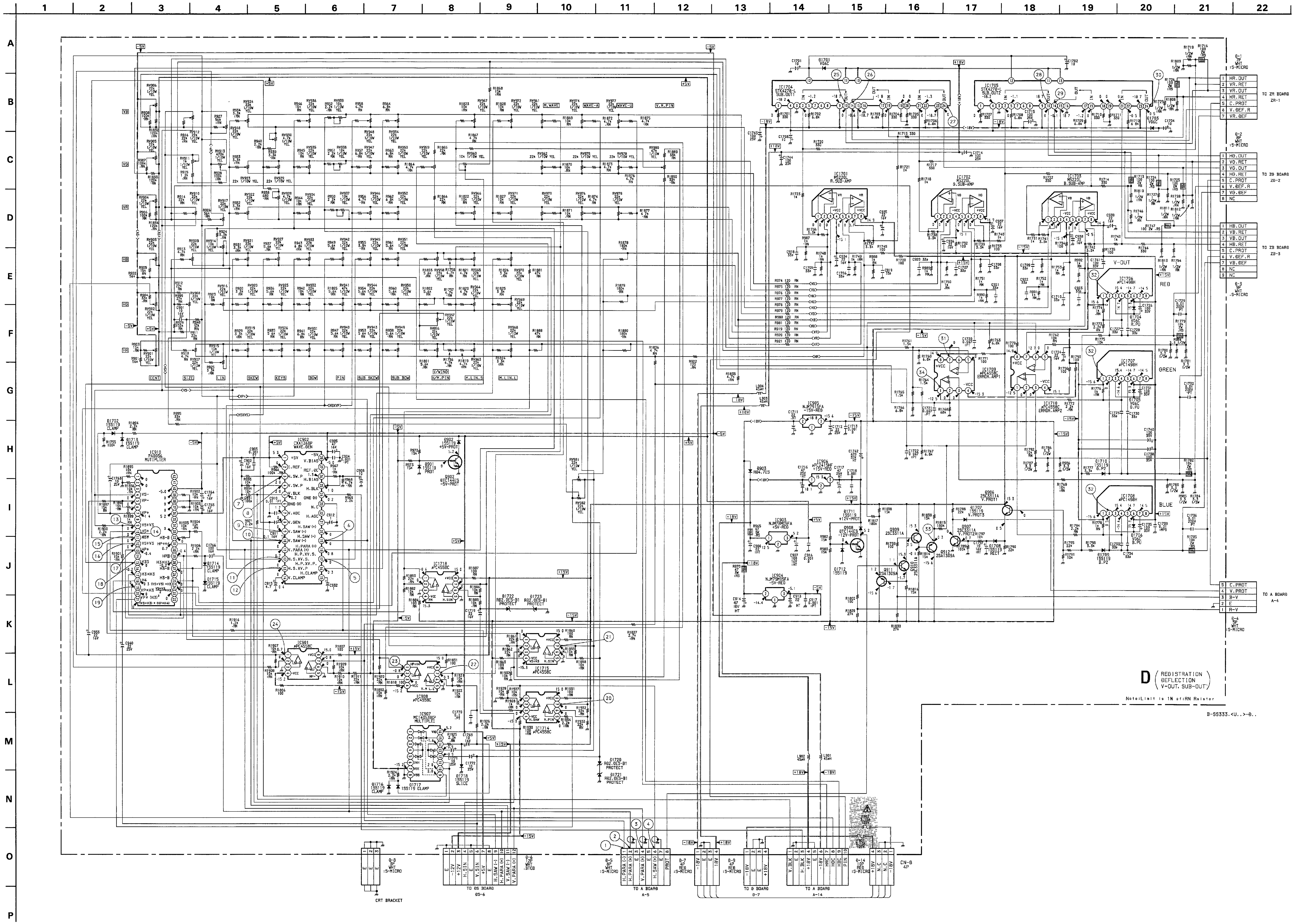
D Board IC1706, 1707, 1708 μPC1498H



3
7
6
4
V OUT
VOLTAGE BOOSTER
NC
2
5
1
8

— D Board —





1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
A B C D E F G H I J K L M N O P
IC1704 STK4276-L SUB.OUT1
IC1705 STK4276-L SUB.OUT2
IC1701 M5220L R.SUB-AMP
IC1702 M5220L G.SUB-AMP
IC1703 M5220L B.SUB-AMP
IC1706 μPC1498H
IC1707 μPC1498H
IC1708 μPC1498H
V-OUT
RED
GREEN
BLUE
IC1709 μPC4558C ERROR.AMP1
IC1710 μPC4558C ERROR.AMP2
IC905 NJM7915FA -15V-REG
IC906 μPC2418HF +15V-REG
IC903 NJM7805FA +5V-REG
IC904 NJM7905FA -5V-REG
IC910 PA0056 MULTIPLIER
IC902 CXA1249P WAVE.GEN
IC901 μPC4558C
IC1718 μPC4558C
IC1715 μPC4558C
IC1714 μPC4558C
IC1712 μPC4558C
IC907 MC14053BCP MULTIPLEX
Q902 2SA1175 +5V-PROT1
Q904 2SC3311A V.PROT1
Q908 2SC3311A
Q909 2SC3311A
Q911 2SA1309A
Q912 2SA1309A
D1702 1SS119 CLAMP
D1715 1SS119 CLAMP
D1716 1SS119 CLAMP
D1717 1SS119 CLAMP
D1720 RD2.0ES-B1 PROTECT
D1721 RD2.0ES-B1 PROTECT
D1722 RD2.0ES-B1 PROTECT
D1723 RD2.0ES-B1 PROTECT
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
V/W.PIN
M.LIN.S
M.LIN.L
H.WAVE
WAVE-A
WAVE-U
V.M.PIN
D-1 7P WHT :S-MICRO
1 HR.OUT
2 VR.RET
3 VR.OUT
4 HR.RET
5 C.PROT
6 V.DEF.R
7 VR.DEF
TO ZR BOARD ZR-1
D-2 8P WHT :S-MICRO
1 HG.OUT
2 VG.RET
3 VG.OUT
4 HG.RET
5 C.PROT
6 V.DEF.R
7 VG.DEF
8 NC
TO ZG BOARD ZG-2
1 HB.OUT
2 VB.RET
3 VB.OUT
4 HB.RET
5 C.PROT
6 V.DEF.R
7 VB.DEF
8 NC
9 NC
TO ZB BOARD ZB-3
D-3 9P WHT :S-MICRO
5 C.PROT
4 V.PROT
3 B-V
2 E
1 R-V
TO A BOARD A-4
D-4 5P WHT :S-MICRO
D-8 3P WHT :S-MICRO
CRT BRACKET
TO DS BOARD DS-6
D-6 10P WHT :STCB
TO A BOARD A-5
D-5 8P WHT :S-MICRO
D-7 4P RED :S-MICRO
TO B BOARD B-7
D-9 4P RED :S-MICRO
TO A BOARD A-14
D-14 10P RED :S-MICRO
CN-6 4P

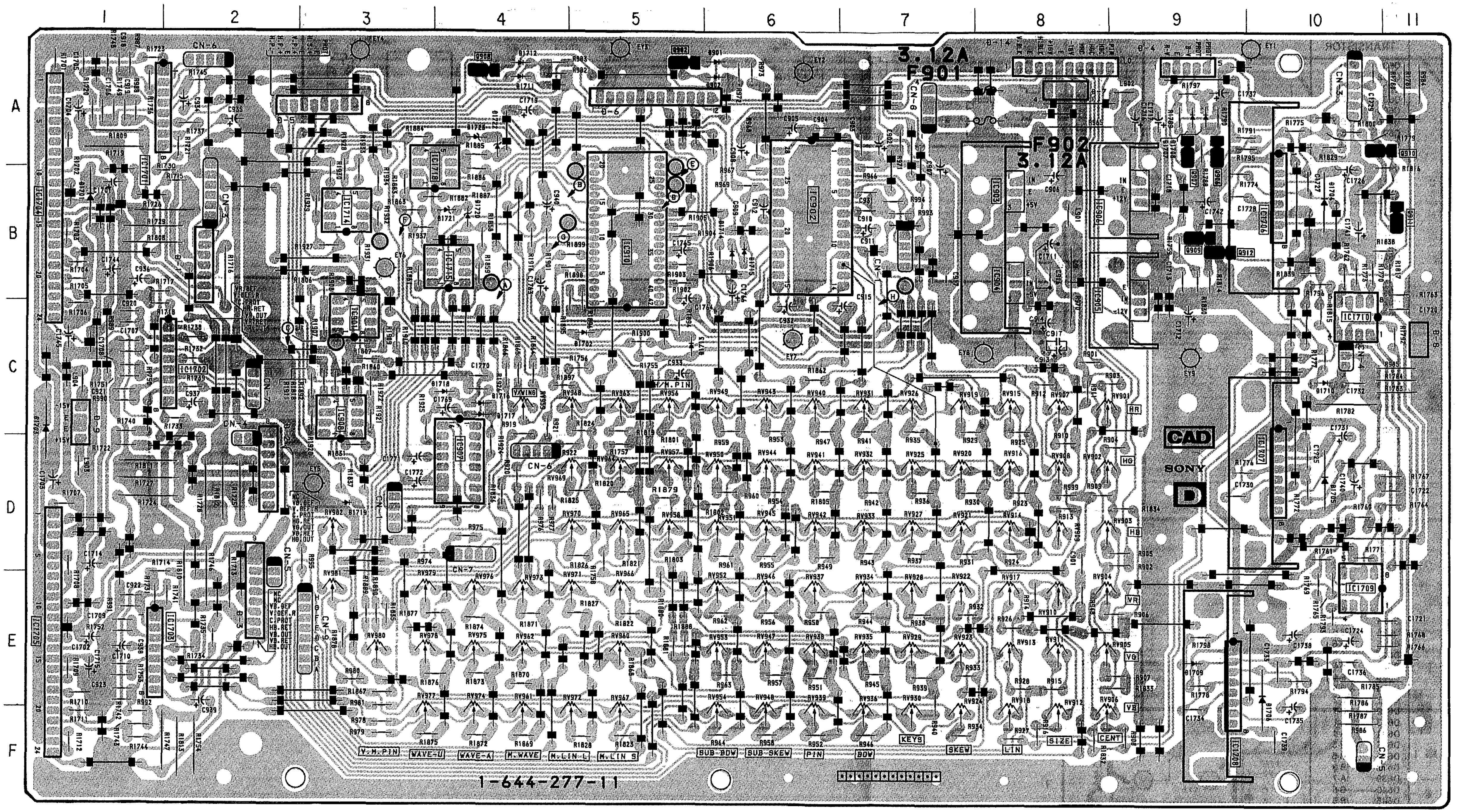
D (REGISTRATION
DEFLECTION
V-OUT, SUB-OUT)

Note:Limit is 1% of:RN Rsistor

B-SS333.<U..>-D..

D (REGISTRATION, SUB OUT DEFLECTION, V OUT)

— D Board —


1
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8
9
10
11
A
B
C
D
E
F
3.12A
F901
F902
3.12A
IC902
IC903
IC904
IC905
IC906
IC907
IC910
IC1701
IC1702
IC1703
IC1704
IC1705
IC1706
IC1707
IC1708
IC1709
IC1710
IC1714
IC1715
IC1718
CN-6
CN-7
CN-5
CAD
SONY
D
H.M.PIN
V.WING
HR
HG
HB
VR
VG
VB
V.M.PIN
WAVE-U
WAVE-A
H.WAVE
H.LIN L
H.LIN S
SUB-BOW
SUB-SKEW
PIN
BOW
KEYS
SKEW
LIN
SIZE
CENT
1-644-277-11

— D Board —

IC	
IC901	C-3
IC902	B-6
IC903	B-8
IC904	B-8
IC905	B-9
IC906	B-9
IC907	D-4
IC908	C-3
IC910	B-5
IC1701	A-1
IC1702	C-2
IC1703	E-1
IC1704	B-1
IC1705	E-1
IC1706	B-10
IC1707	D-10
IC1708	E-9
IC1709	E-10
IC1710	C-10
IC1714	B-3
IC1715	B-4
IC1718	B-4

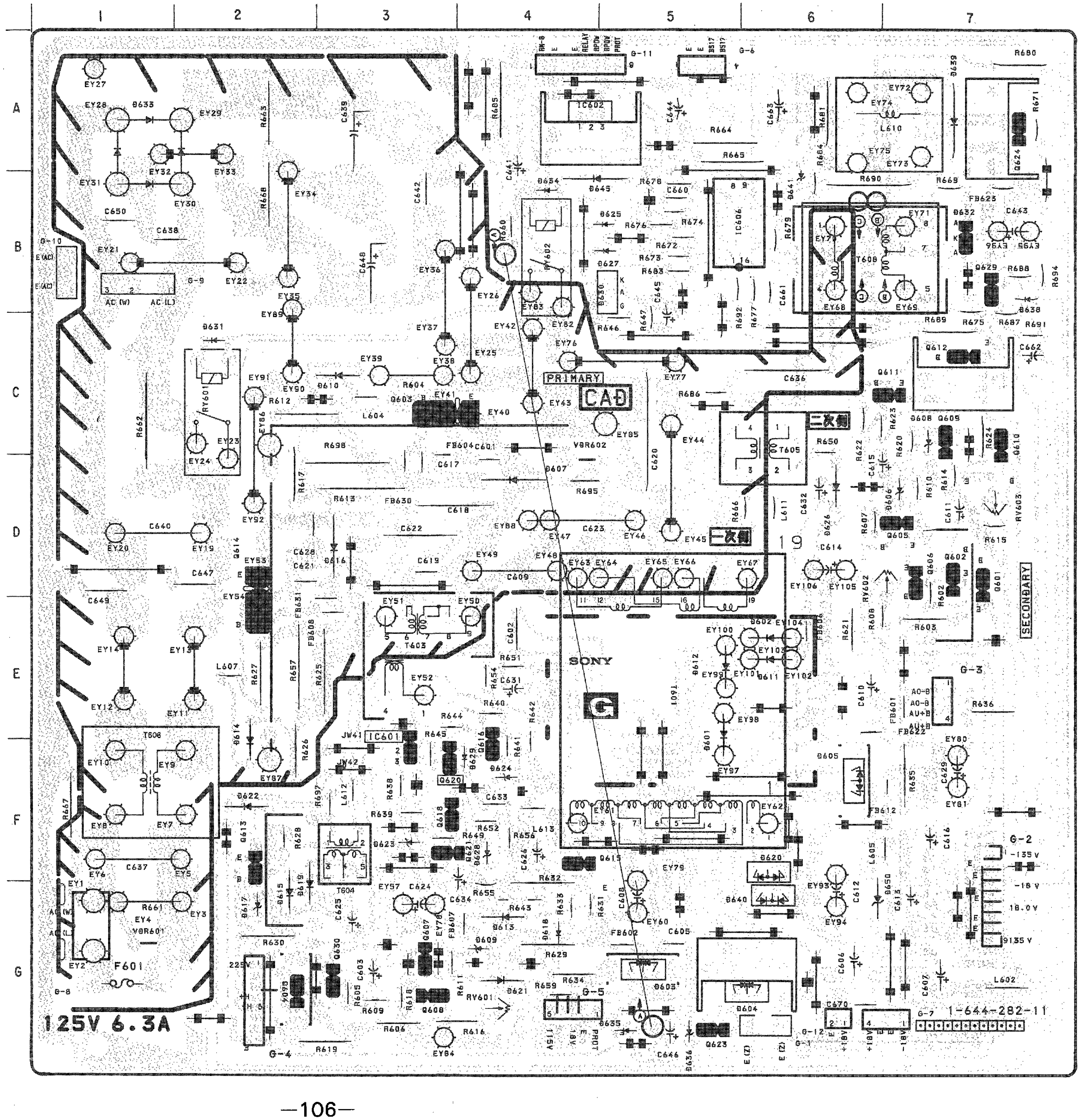
TRANSISTOR	
Q902	A-5
Q906	A-9
Q907	A-9
Q908	A-4
Q909	D-9
Q910	A-11
Q911	B-11
Q912	B-9

DIODE	
D901	A-6
D902	A-6
D1701	B-1
D1702	C-5
D1703	C-1
D1704	B-10
D1705	D-10
D1706	E-10
D1707	A-9
D1708	A-9
D1709	E-9
D1710	C-10
D1711	A-4
D1712	A-4
D1713	C-5
D1714	B-6
D1715	B-6
D1716	C-4
D1717	C-4
D1718	C-4
D1720	B-4
D1721	B-4
D1722	A-4
D1723	A-4

VARIABLE RESISTOR	
RV901	C-9
RV902	D-9
RV903	D-9
RV904	E-9
RV905	D-9
RV906	F-9
RV907	C-8
RV908	D-8
RV909	D-8
RV910	E-8
RV911	E-8
RV912	F-8
RV913	E-8
RV914	D-8
RV915	C-8
RV916	D-8
RV917	E-8
RV918	F-8
RV919	C-7
RV920	D-7
RV921	D-7
RV922	E-7
RV923	E-7
RV924	F-7
RV925	D-7
RV926	C-7
RV927	D-7
RV928	E-7
RV929	E-7
RV930	F-7
RV931	C-7
RV932	D-7
RV933	D-7
RV934	E-7
RV935	E-7
RV936	F-7
RV937	E-6
RV938	E-6
RV939	F-6
RV940	C-6
RV941	D-6
RV942	D-6
RV943	C-6
RV944	D-6
RV945	D-6
RV946	E-6
RV947	E-6
RV948	F-6
RV949	C-6
RV950	D-6
RV951	D-6
RV952	E-6
RV953	E-6
RV954	F-6
RV956	C-5
RV957	D-5
RV958	D-5
RV959	C-4
RV960	E-5
RV961	F-4
RV962	E-4
RV963	C-5
RV964	D-5
RV965	D-5
RV967	F-5
RV968	C-5
RV969	D-5
RV970	D-5
RV971	E-5
RV972	F-5
RV973	E-4
RV974	F-4
RV975	E-4
RV976	E-4
RV978	E-3
RV979	E-3
RV980	E-3
RV981	E-3
RV982	D-3

G [POWER SUPPLY]

— G Board —


1
2
3
4
5
6
7
A
B
C
D
E
F
G
PRIMARY
CAD
SECONDARY
二次側
一次側
SONY
G
IC601
IC602
IC606
F601
125V 6.3A
1-644-282-11
G-2
-135V
-18V
18.0V
135V
G-3
G-4
G-5
G-6
G-7
G-8
G-9
G-10
G-11
T603
T604
T605
T606
VDR601
VDR602
RV601
RV602
RV603

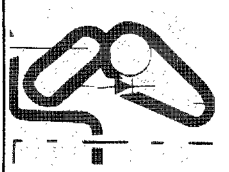
— G Board —

IC	
IC601	E-3
IC602	A-4
IC606	B-6

TRANSISTOR	
Q601	D-7
Q602	D-7
Q603	C-3
Q604	G-2
Q605	D-7
Q606	D-7
Q607	G-3
Q608	G-3
Q609	C-7
Q610	C-7
Q611	C-7
Q612	C-7
Q613	F-2
Q614	E-2
Q615	F-4
Q616	F-4
Q618	F-3
Q620	F-3
Q621	F-3
Q623	H-5
Q624	A-8
Q629	B-7
Q630	G-3

DIODE	
D601	E-5
D602	E-6
D603	G-5
D604	G-6
D605	F-6
D606	D-7
D607	D-4
D608	C-7
D609	G-4
D610	C-3
D611	E-6
D612	E-5
D613	G-4
D614	F-2
D615	G-2
D616	D-3
D617	G-2
D618	G-4
D619	G-2
D620	F-6
D621	G-4
D622	F-2
D623	F-3
D624	F-4
D625	B-5
D626	D-6
D627	B-5
D628	F-4
D629	F-4
D630	B-5
D631	C-2
D632	B-7
D633	A-1
D634	B-4
D635	H-5
D636	H-5
D638	B-8
D639	A-7
D640	G-6
D645	B-5
D650	G-7

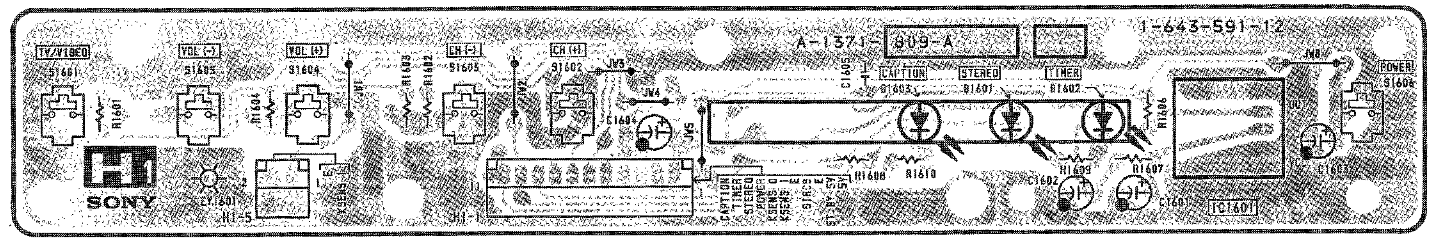
VARIABLE RESISTOR	
RV601	G-4
RV602	D-7
RV603	D-7



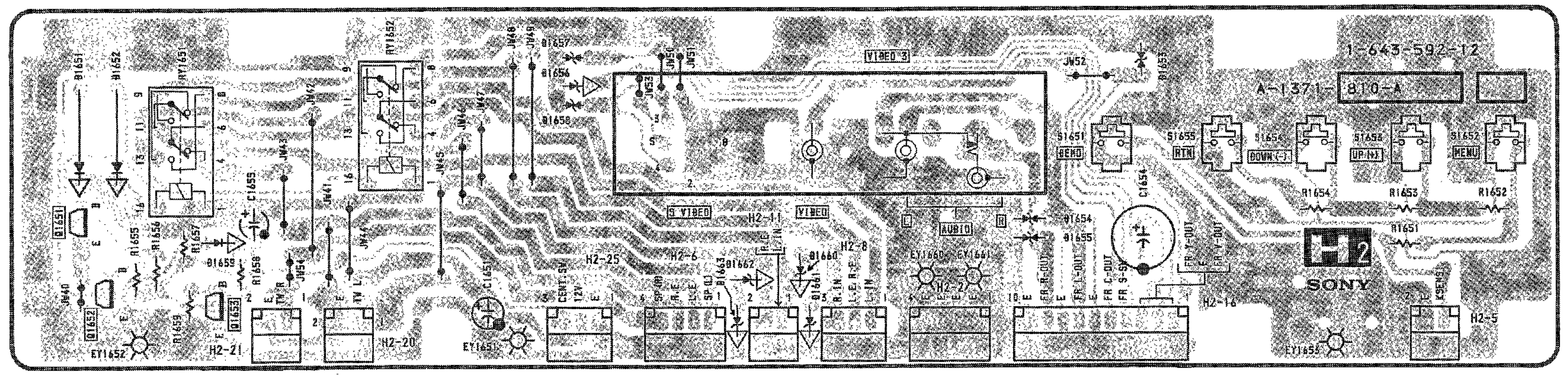
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

H1 [USER CONTROL] H2 [USER CONTROL] DS [SIN. WAVE GEN]

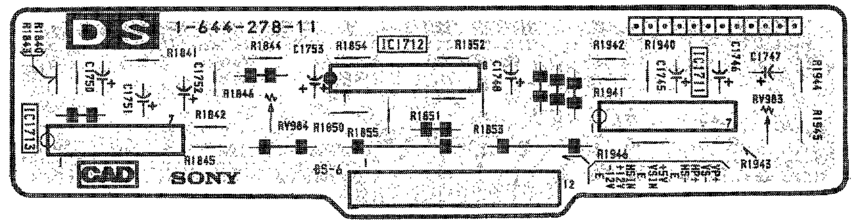
— H1 Board —


A-1371-809-A
1-643-591-12
H1
SONY
IC1601
TV/VIDEO
VOL
CH
POWER
CAPTION
STEREO
TIMER

— H2 Board —

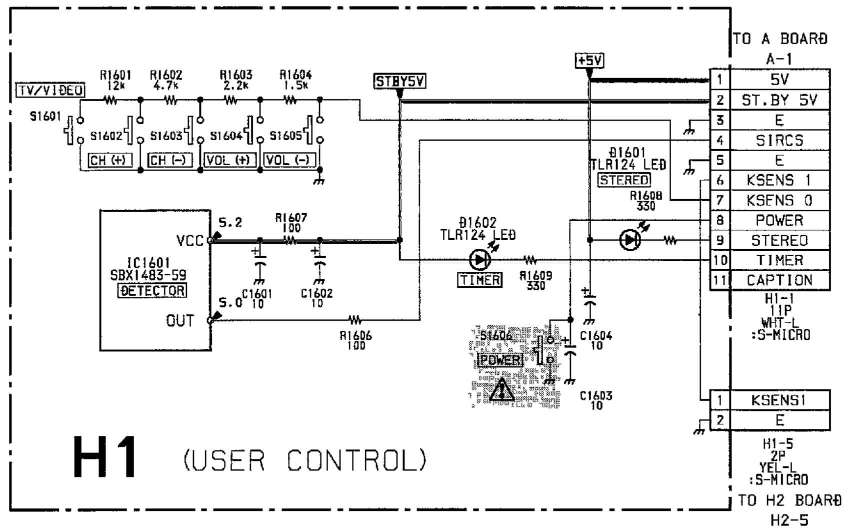

1-643-592-12
A-1371-810-A
H2
SONY
RTN
MENU

— DS Board —

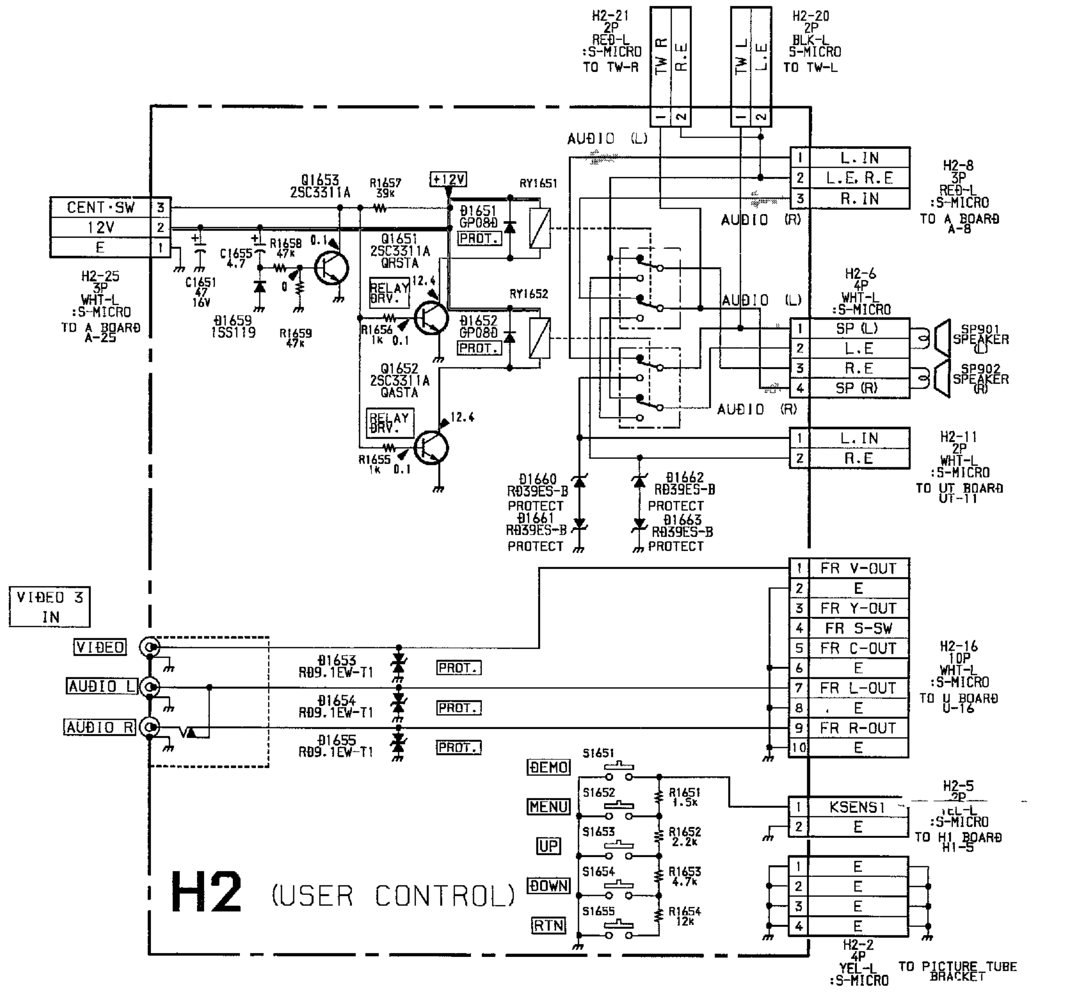

DS
1-644-278-11
IC1712
IC1711
IC1713
CAD
SONY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

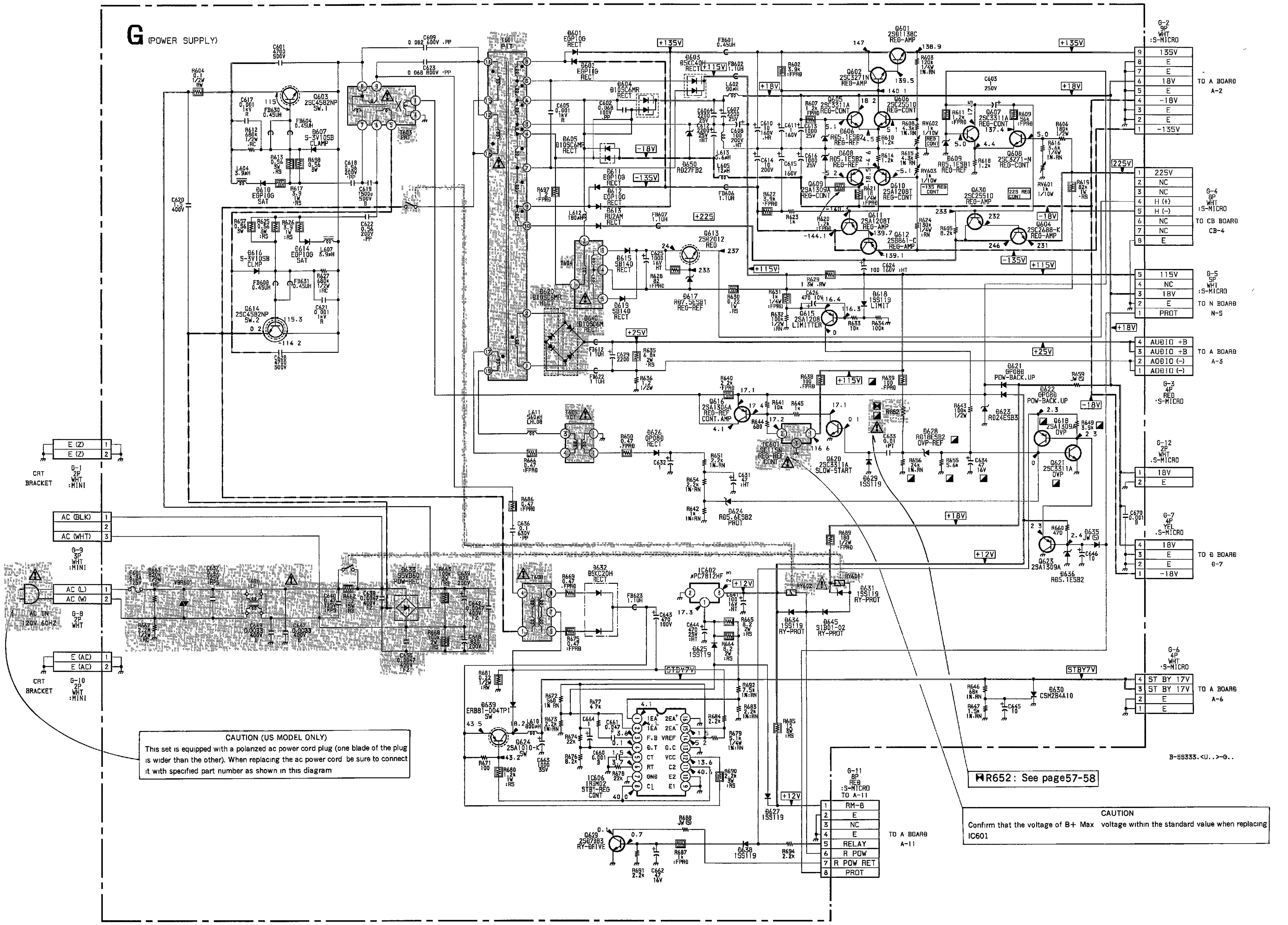
A B C D E F G H I J K L M N O


H1 (USER CONTROL)
TV/VIDEO
CH (+)
CH (-)
VOL (+)
VOL (-)
IC1601 SBX1483-59 DETECTOR
STBY5V
STEREO
TIMER
POWER
TO A BOARD A-1
5V
ST.BY 5V
E
SIRCS
E
KSENS I
KSENS 0
POWER
STEREO
TIMER
CAPTION
H1-1 11P WHT-L :S-MICRO
KSENS1
E
H1-5 2P YEL-L :S-MICRO
TO H2 BOARD H2-5

B-SS333.<U..>-H1.


H2 (USER CONTROL)
H2-21 2P RED-L :S-MICRO TO TW-R
H2-20 2P BLK-L :S-MICRO TO TW-L
TW R
TW L
R.E
L.E
CENT-SW
12V
E
H2-25 3P WHT-L :S-MICRO TO A BOARD A-23
AUDIO (L)
AUDIO (R)
L.IN
L.E.R.E
R.IN
H2-8 3P RED-L :S-MICRO TO A BOARD A-8
SP (L)
L.E
R.E
SP (R)
H2-6 4P WHT-L :S-MICRO
SP901 SPEAKER (L)
SP902 SPEAKER (R)
L.IN
R.E
H2-11 2P WHT-L :S-MICRO TO UT BOARD UT-11
PROT.
PROTECT
VIDEO 3 IN
VIDEO
AUDIO L
AUDIO R
FR V-OUT
E
FR Y-OUT
FR S-SW
FR C-OUT
E
FR L-OUT
E
FR R-OUT
H2-16 10P WHT-L :S-MICRO TO U BOARD U-16
DEMO
MENU
UP
DOWN
RTN
KSENS1
E
H2-5 2P YEL-L :S-MICRO TO H1 BOARD H1-5
H2-2 4P YEL-L :S-MICRO
TO PICTURE TUBE BRACKET

B-SS333.<U..>-H2.


G (POWER SUPPLY)
G-2 9P WHT :S-MICRO
135V
E
E
18V
E
-18V
E
E
-135V
TO A BOARD A-2
G-4 8P WHT :S-MICRO
225V
NC
NC
H (+)
H (-)
NC
NC
E
TO CB BOARD CB-4
G-5 5P WHT :S-MICRO
115V
NC
18V
E
PROT
TO N BOARD N-5
AUDIO +B
AUDIO +B
AUDIO (-)
AUDIO (-)
TO A BOARD A-3
G-3 4P RED :S-MICRO
G-12 2P WHT :S-MICRO
18V
E
G-7 4P YEL :S-MICRO
18V
E
E
-18V
TO G BOARD G-7
G-6 4P WHT :S-MICRO
ST BY 17V
ST BY 17V
E
E
TO A BOARD A-6
G-11 8P RED :S-MICRO TO A-11
RM-8
E
NC
E
RELAY
R POW
R POW RET
PROT
TO A BOARD A-11
E (Z)
E (Z)
G-1 2P WHT :MINI
CRT BRACKET
AC (BLK)
AC (WHT)
G-9 3P WHT :MINI
AC (L)
AC (W)
G-8 2P WHT
E (AC)
E (AC)
G-10 2P WHT :MINI
CRT BRACKET
AC IN 120V 60Hz
T601 FBT
IC601
IC602 μPC7812HF
IC606
+135V
+115V
+18V
-18V
+225V
-135V
+25V
+12V
STBY7V

CAUTION (US MODEL ONLY)

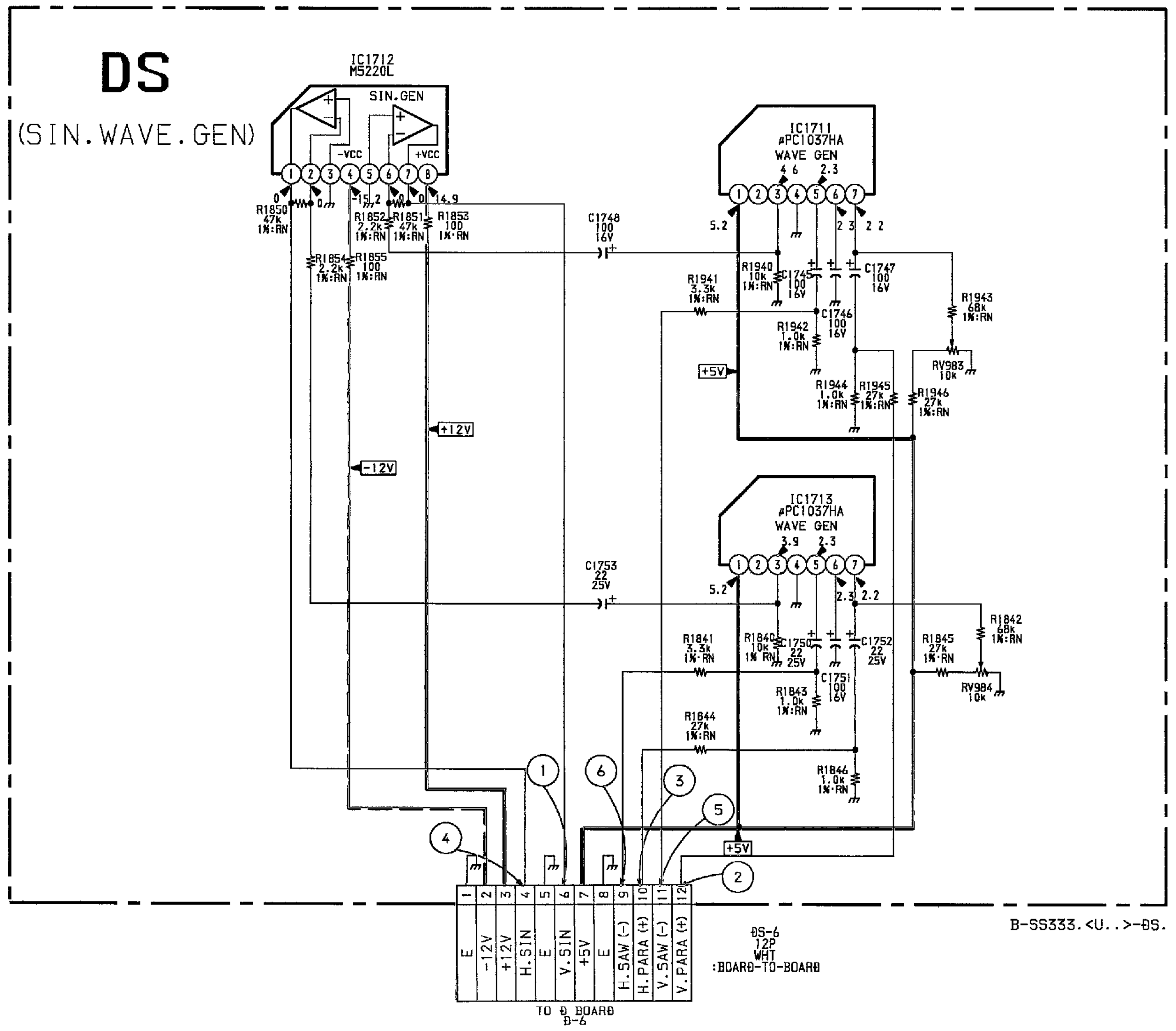
This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord be sure to connect it with specified part number as shown in this diagram

R652: See page57-58

CAUTION

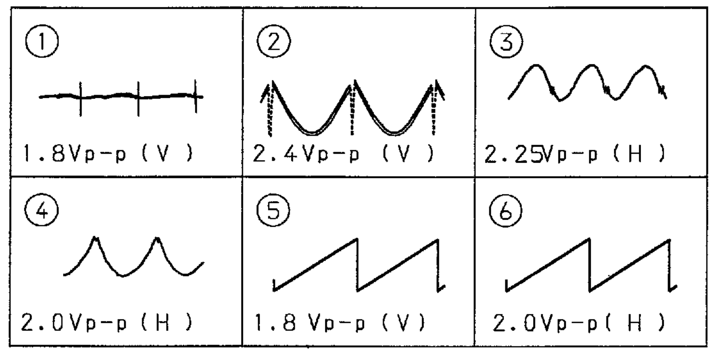
Confirm that the voltage of B+ Max voltage within the standard value when replacing IC601

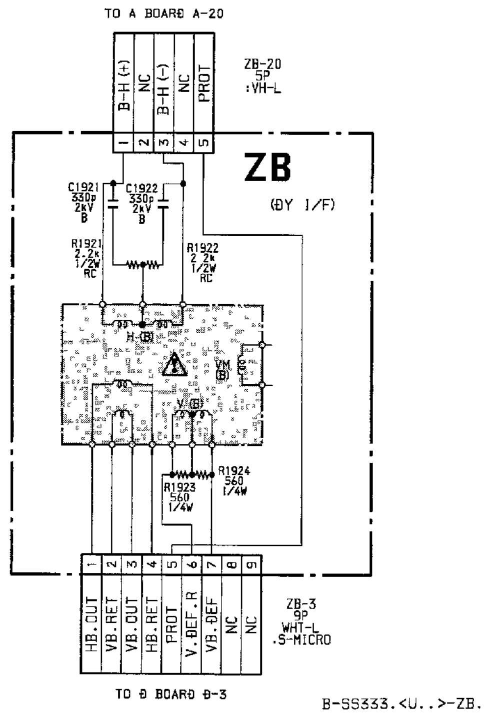
B-SS333.<U..>-G..


DS
(SIN.WAVE.GEN)
IC1712 M5220L SIN.GEN
IC1711 μPC1037HA WAVE GEN
IC1713 μPC1037HA WAVE GEN
E
-12V
+12V
H.SIN
E
V.SIN
+5V
E
H.SAW (-)
H.PARA (+)
V.SAW (-)
V.PARA (+)
DS-6 12P WHT :BOARD-TO-BOARD
TO G BOARD G-6

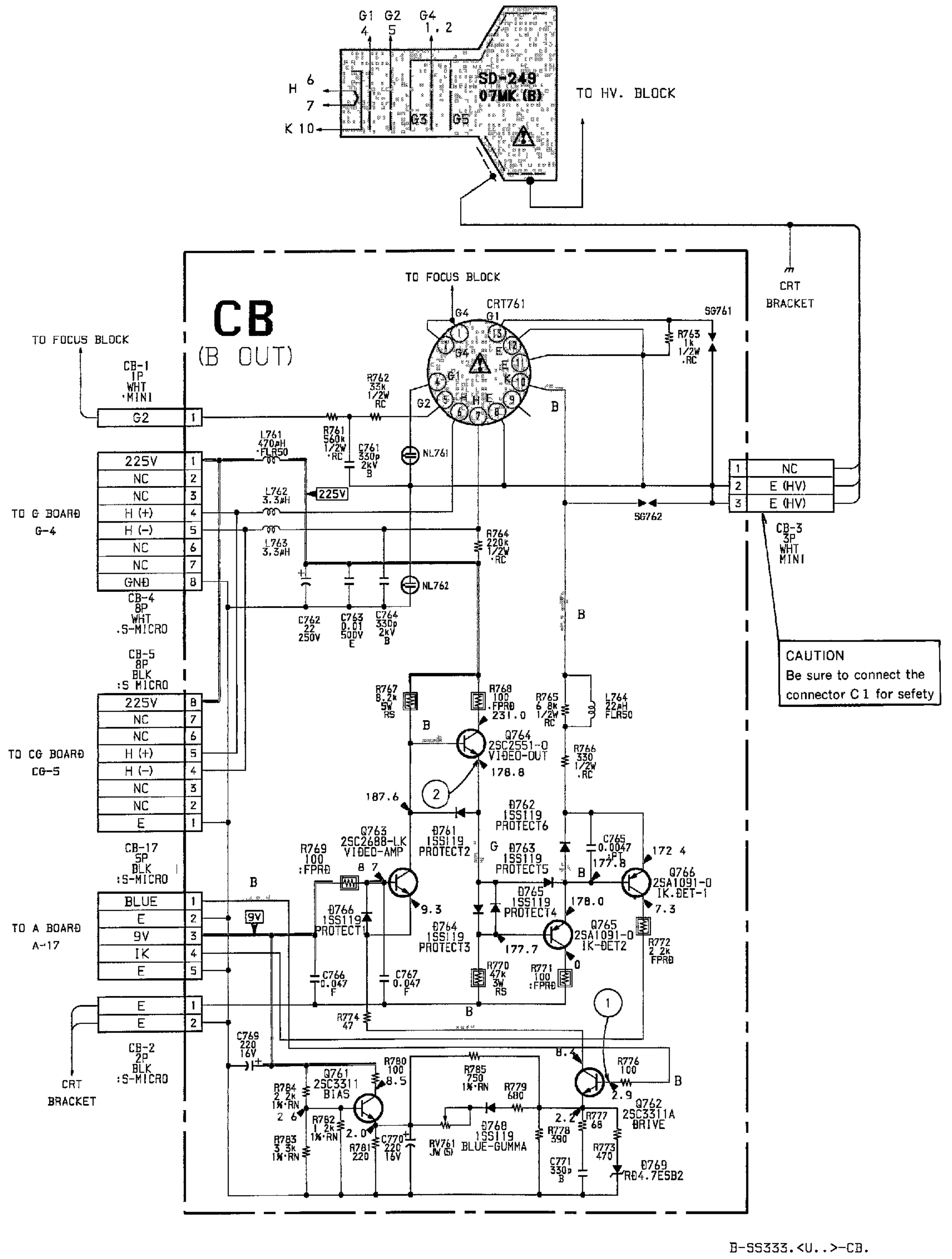
B-SS333.<U..>-DS.

— DS Board —

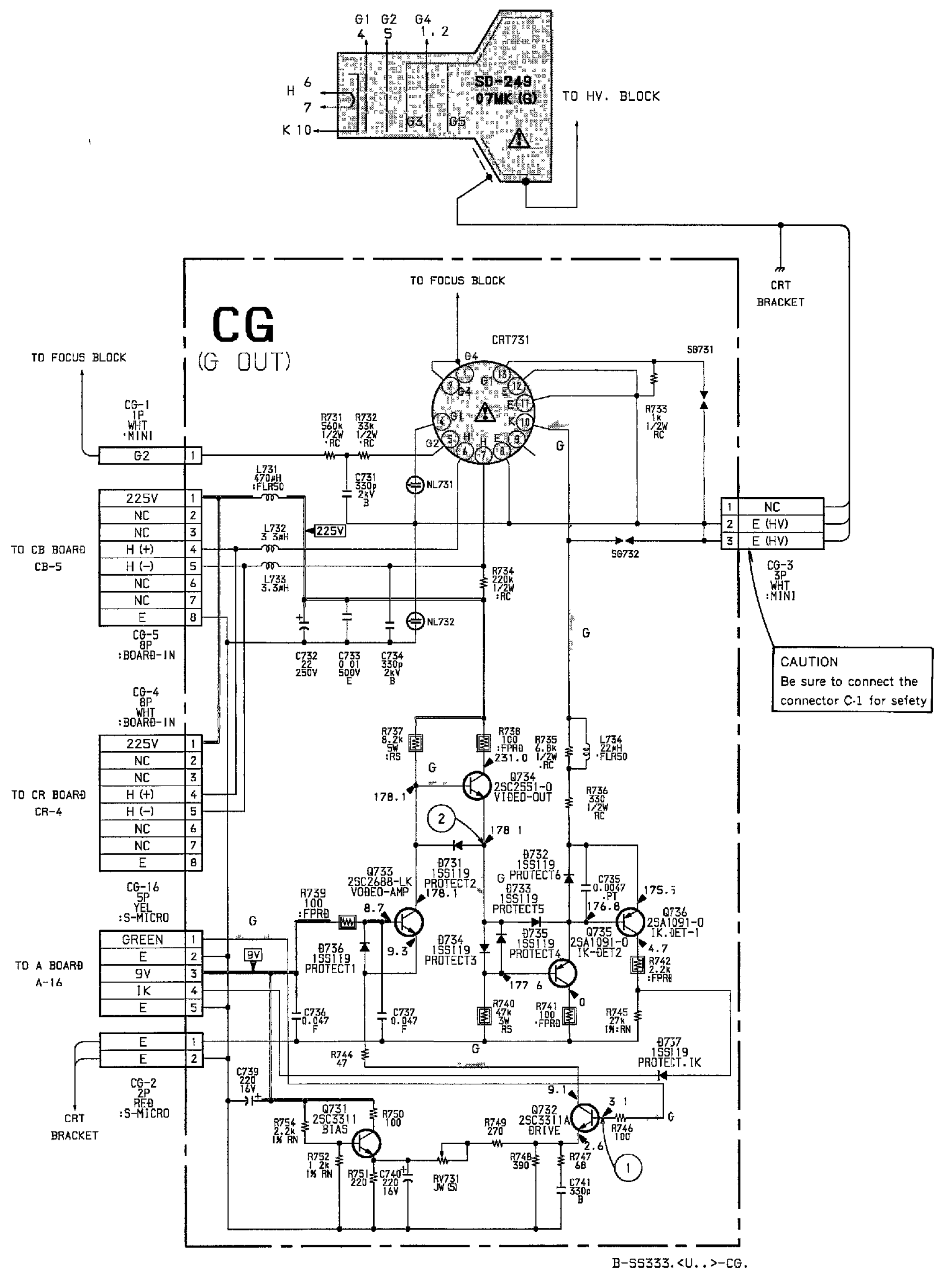

①
1.8Vp-p (V)
②
2.4Vp-p (V)
③
2.25Vp-p (H)
④
2.0Vp-p (H)
⑤
1.8 Vp-p (V)
⑥
2.0Vp-p(H)


TO A BOARD A-20
ZB
(BY I/F)
ZB-20
5P
VH-L
ZB-3
9P
WHT-L
S-MICRO
TO G BOARD G-3

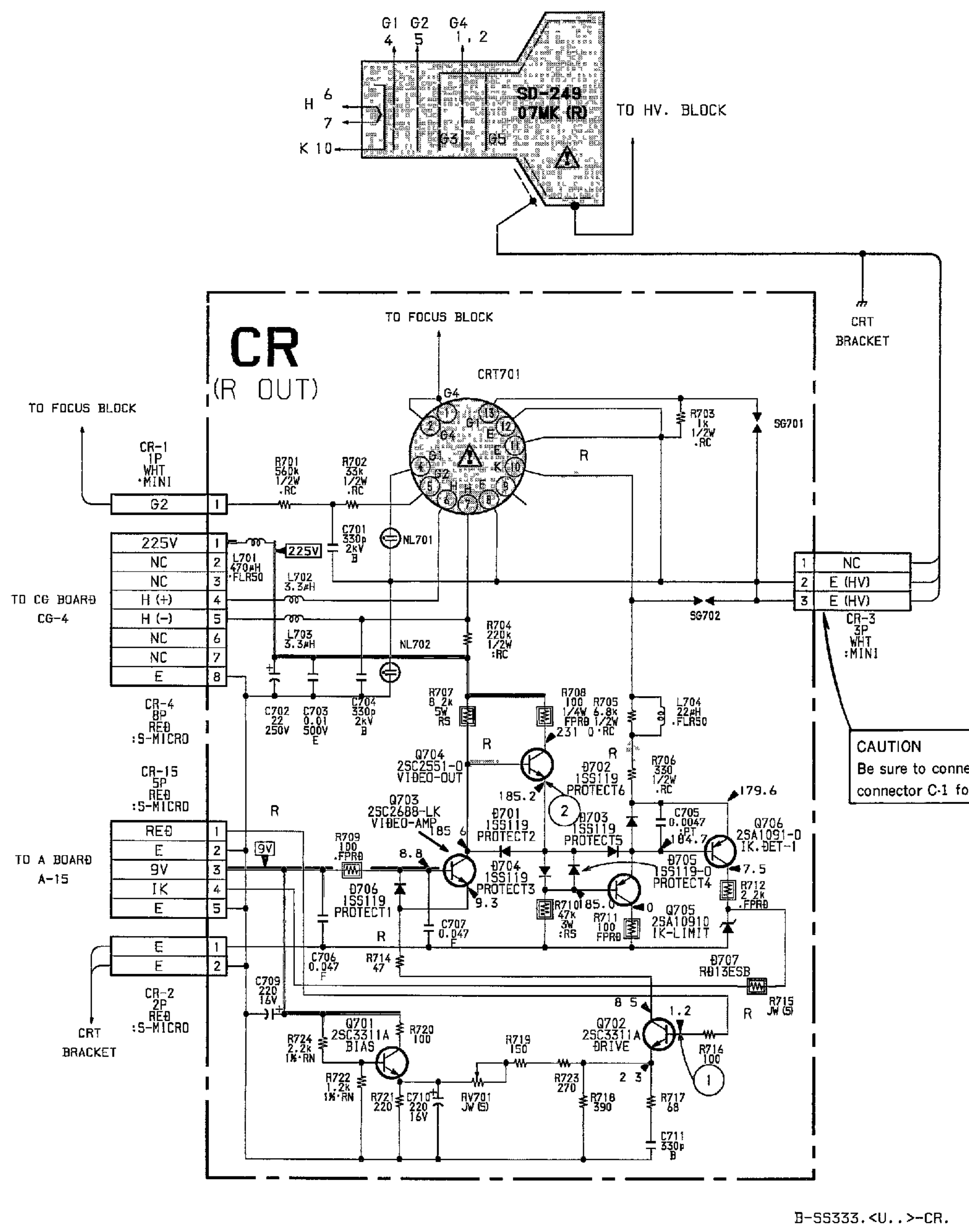
B-SS333.<U..>-ZB.


SD-249
07MK (B)
TO HV. BLOCK
CB
(B OUT)
TO FOCUS BLOCK
CRT761
CRT
BRACKET
CB-1
1P
WHT
MINI
G2
225V
NC
H (+)
H (-)
GND
TO G BOARD
G-4
TO CG BOARD
CG-5
TO A BOARD
A-17
BLUE
9V
IK
E
CB-3
3P
WHT
MINI
NC
E (HV)
CAUTION
Be sure to connect the connector C 1 for safety
Q764
2SC2551-O
VIDEO-OUT
Q763
2SC2688-LK
VIDEO-AMP
Q765
2SA1091-O
IK-DET2
Q761
2SC3311A
BIAS
Q762
2SC3311A
DRIVE
CRT
BRACKET

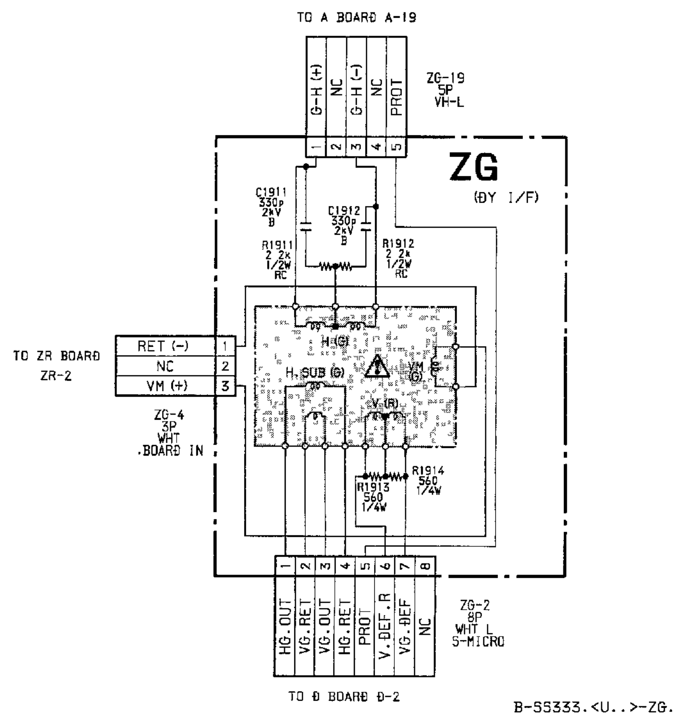
B-SS333.<U..>-CB.


SD-249
07MK (G)
TO HV. BLOCK
CG
(G OUT)
TO FOCUS BLOCK
CRT731
CRT
BRACKET
CG-1
1P
WHT
MINI
G2
225V
NC
H (+)
H (-)
E
TO CB BOARD
CB-5
TO CR BOARD
CR-4
TO A BOARD
A-16
GREEN
9V
IK
E
CG-3
3P
WHT
MINI
NC
E (HV)
CAUTION
Be sure to connect the connector C-1 for safety
Q734
2SC2551-O
VIDEO-OUT
Q733
2SC2688-LK
VIDEO-AMP
Q735
2SA1091-O
IK-DET2
Q731
2SC3311A
BIAS
Q732
2SC3311A
DRIVE
CRT
BRACKET

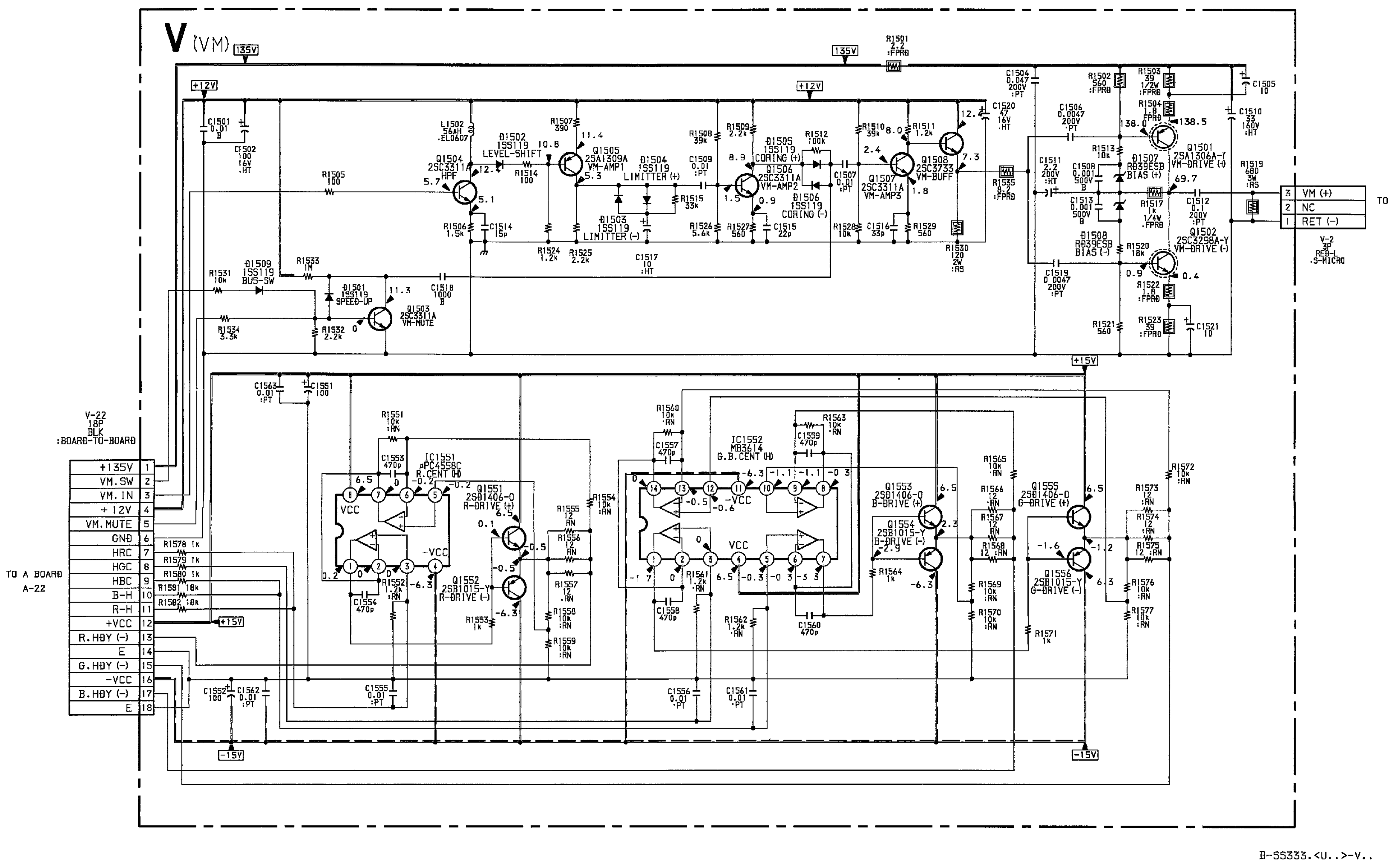
B-SS333.<U..>-CG.


SD-249
07MK (R)
TO HV. BLOCK
CR
(R OUT)
TO FOCUS BLOCK
CRT701
CRT
BRACKET
CR-1
1P
WHT
MINI
G2
225V
NC
H (+)
H (-)
E
TO CG BOARD
CG-4
TO A BOARD
A-15
RED
9V
IK
E
CR-3
3P
WHT
MINI
NC
E (HV)
CAUTION
Be sure to connect the connector C-1 for safety
Q704
2SC2551-O
VIDEO-OUT
Q703
2SC2688-LK
VIDEO-AMP
Q705
2SA1091-O
IK-LIMIT
Q701
2SC3311A
BIAS
Q702
2SC3311A
DRIVE
CRT
BRACKET

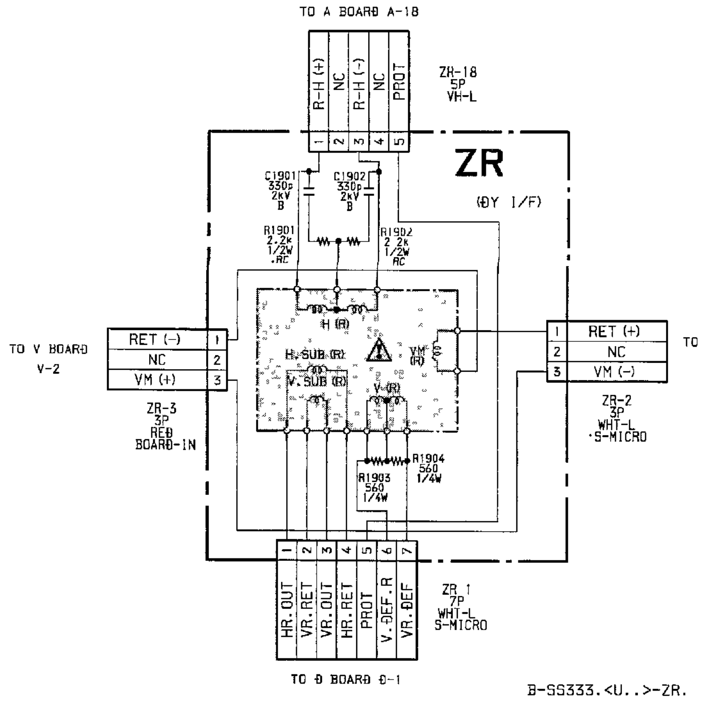
B-SS333.<U..>-CR.


TO A BOARD A-19
ZG
(BY I/F)
ZG-19
5P
VH-L
TO ZR BOARD
ZR-2
RET (-)
NC
VM (+)
ZG-4
3P
WHT
BOARD IN
ZG-2
8P
WHT-L
S-MICRO
TO G BOARD G-2

B-SS333.<U..>-ZG.

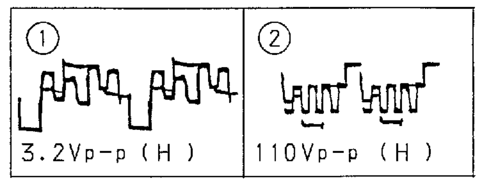

V (VM)
135V
+12V
+15V
-15V
Q1502
1SS119
LEVEL-SHIFT
Q1505
2SA1309A
VM-AMP1
Q1504
2SC3311A
HPF
Q1506
2SC3311A
VM-AMP2
Q1507
2SC3311A
VM-AMP3
Q1508
2SC3733
VM-BUFF
Q1501
2SA1306A-Y
VM-DRIVE (+)
Q1502
2SC3298A-Y
VM-DRIVE (-)
Q1509
1SS119
BUS-SW
Q1501
1SS119
SPEED-UP
Q1503
2SC3311A
VM-MUTE
IC1551
uPC4558C
R.CENT DD
IC1552
M5261
G.B.CENT DD
Q1551
2SD1406-O
R-DRIVE (+)
Q1552
2SB1015-Y
R-DRIVE (-)
Q1553
2SD1406-O
B-DRIVE (+)
Q1554
2SB1015-Y
B-DRIVE (-)
Q1555
2SD1406-O
G-DRIVE (+)
Q1556
2SB1015-Y
G-DRIVE (-)
VM (+)
NC
RET (-)
TO ZR BOARD
ZR-3
V-2
3P
RED
S-MICRO
V-22
18P
BLK
BOARD-TO-BOARD
TO A BOARD
A-22
+135V
VM.SW
VM.IN
+12V
VM.MUTE
GND
HRC
HGC
HBC
B-H
R-H
+VCC
R.HGY (-)
E
G.HGY (-)
-VCC
B.HGY (-)
E

B-SS333.<U..>-V..

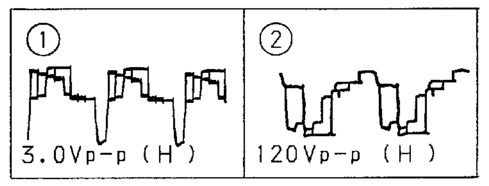

TO A BOARD A-18
ZR
(BY I/F)
ZR-18
5P
VH-L
TO V BOARD
V-2
RET (-)
NC
VM (+)
ZR-3
3P
RED
BOARD-IN
RET (+)
NC
VM (-)
TO ZG BOARD
ZG-4
ZR-2
3P
WHT-L
S-MICRO
ZR-1
7P
WHT-L
S-MICRO
TO G BOARD G-1

B-SS333.<U..>-ZR.

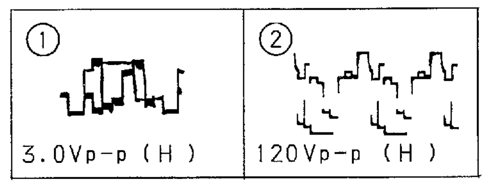
— CB Board —



— CG Board —

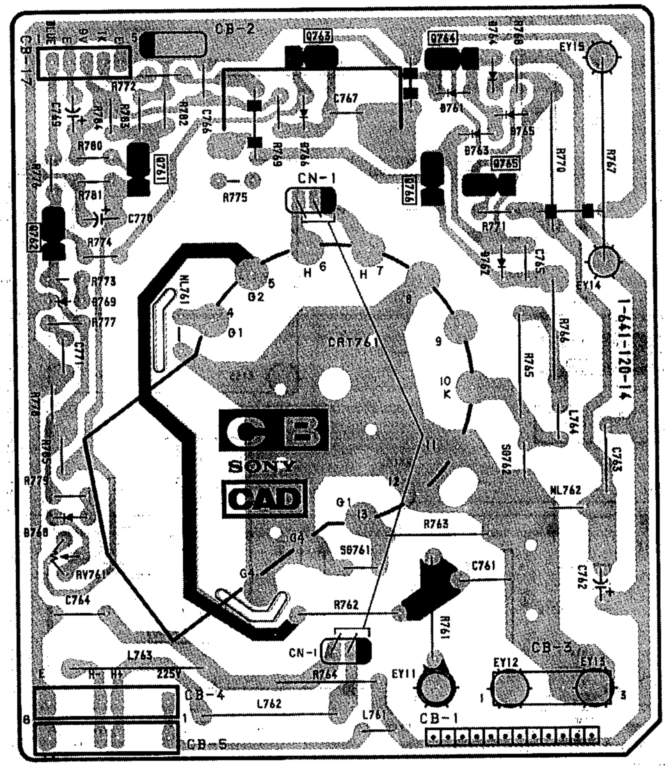


— CR Board —

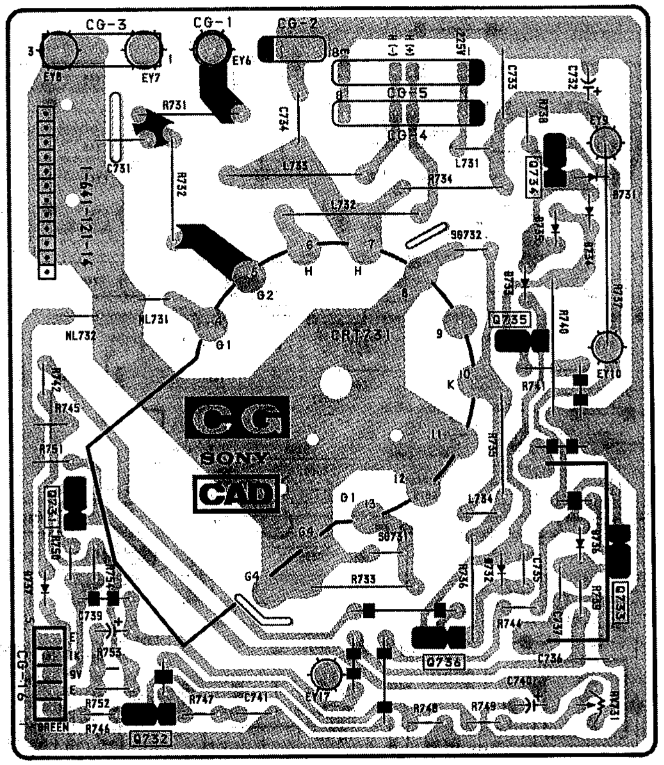


CB [B OUT] **CG** [G OUT] **CR** [R OUT] **V** [VM] **ZB** [DY I/F] **ZG** [DY I/F] **ZR** [DY I/F]

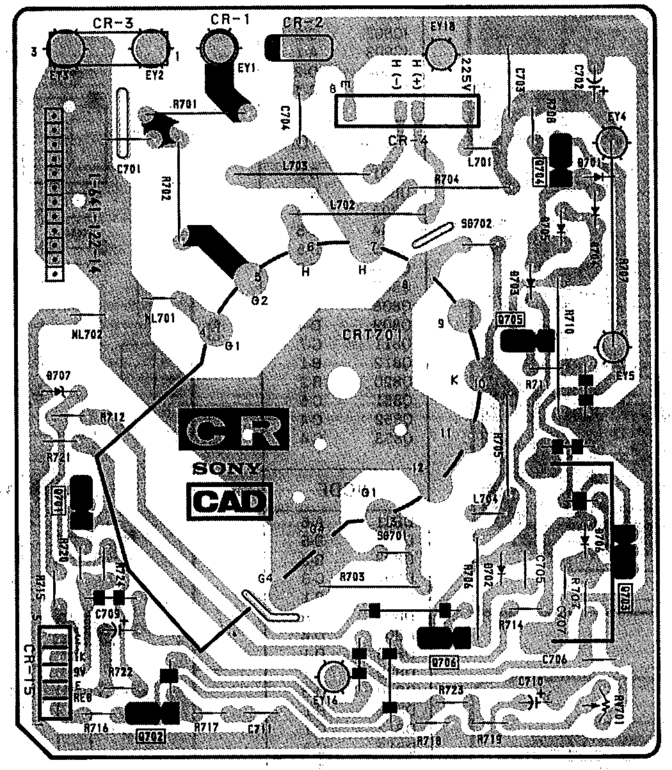
— CB Board —


CB-2
CB-1
CB-3
CB-4
CB-5
CN-1
CRT761
CB
SONY
CAD
1-641-120-14
EY11
EY12
EY13
EY14
EY15
225V

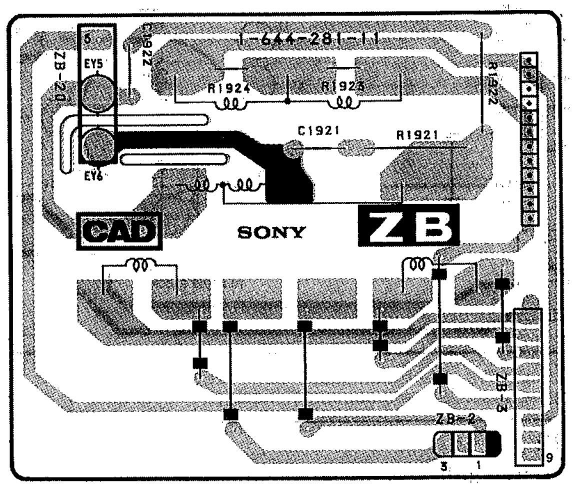
— CG Board —


CG-3
CG-1
CG-2
CG-4
CG-5
CRT731
CG
SONY
CAD
1-641-121-14
225V
GREEN

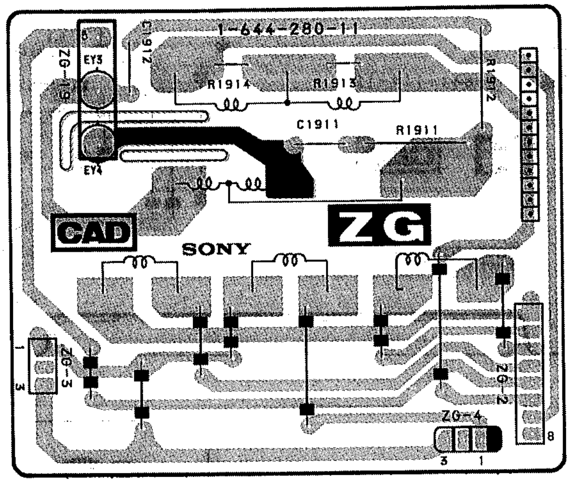
— CR Board —


CR-3
CR-1
CR-2
CR-4
CR-5
CRT701
CR
SONY
CAD
1-641-122-14
225V

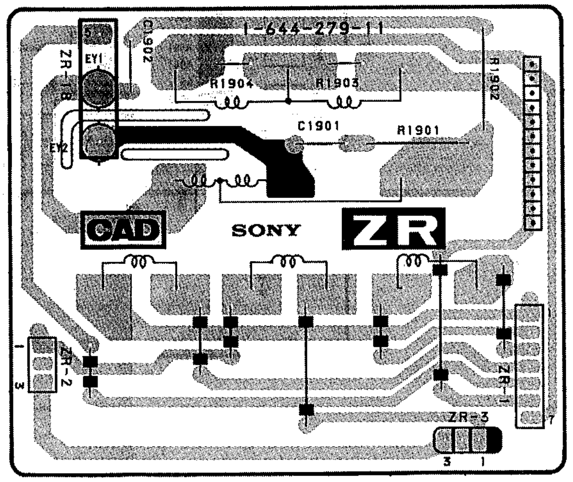
— ZB Board —


1-644-281-11
R1924
R1923
R1922
C1921
R1921
C1922
EY5
EY6
ZB-2
ZB-3
CAD
SONY
ZB

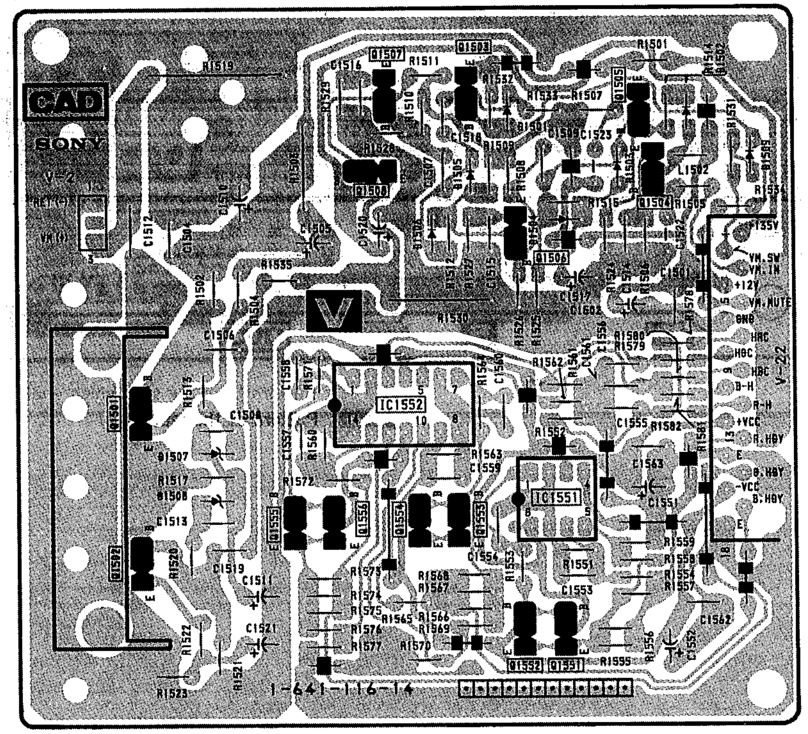
— ZG Board —

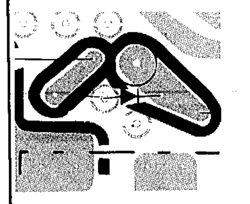

1-644-280-11
R1914
R1913
R1912
C1911
R1911
C1912
EY3
EY4
ZG-2
ZG-3
ZG-4
CAD
SONY
ZG

— ZR Board —


1-644-279-11
R1904
R1903
R1902
C1901
R1901
C1902
EY1
EY2
ZR-1
ZR-2
ZR-3
CAD
SONY
ZR

— V Board —

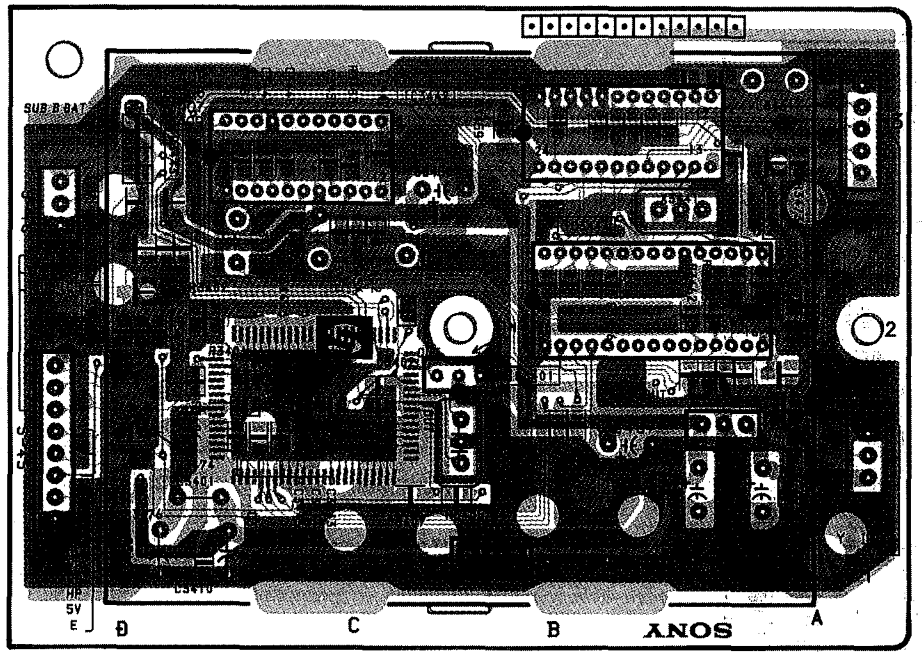

CAD
SONY
V
IC1552
IC1551
1-641-116-14
VM-SW
+12V
VM-MUTE
GND
+VCC
-VCC

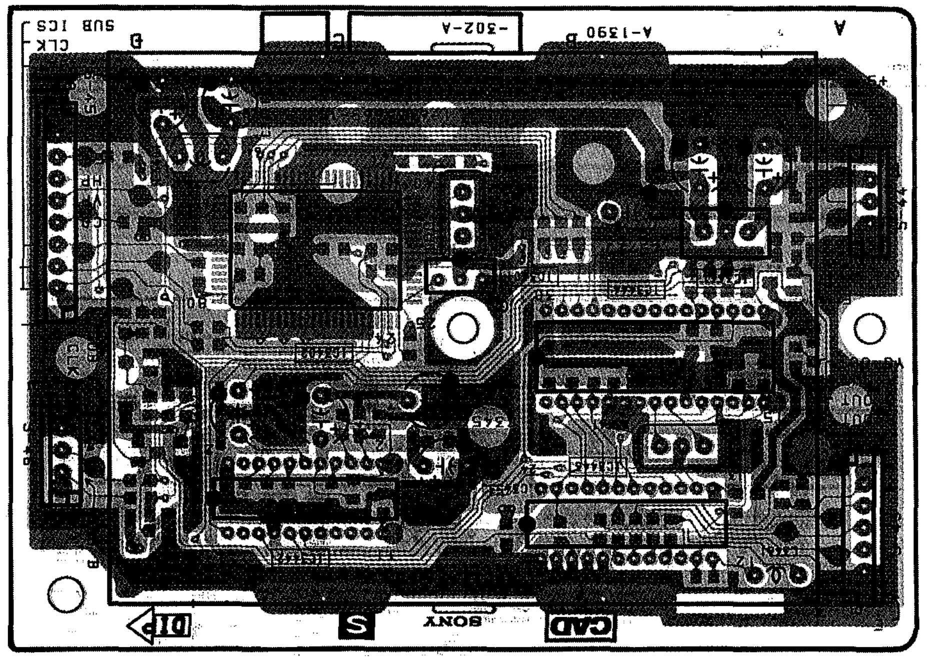


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

S [SUB-CONTROL, MICRO COMPUTER]

— S Board —


SUB B BAT
S-3
S-1
HP
5V
E
D
C
B
A
SONY


SUB ICS
CLK
A-1390
-302-A
SONY
CAD
S
DIP

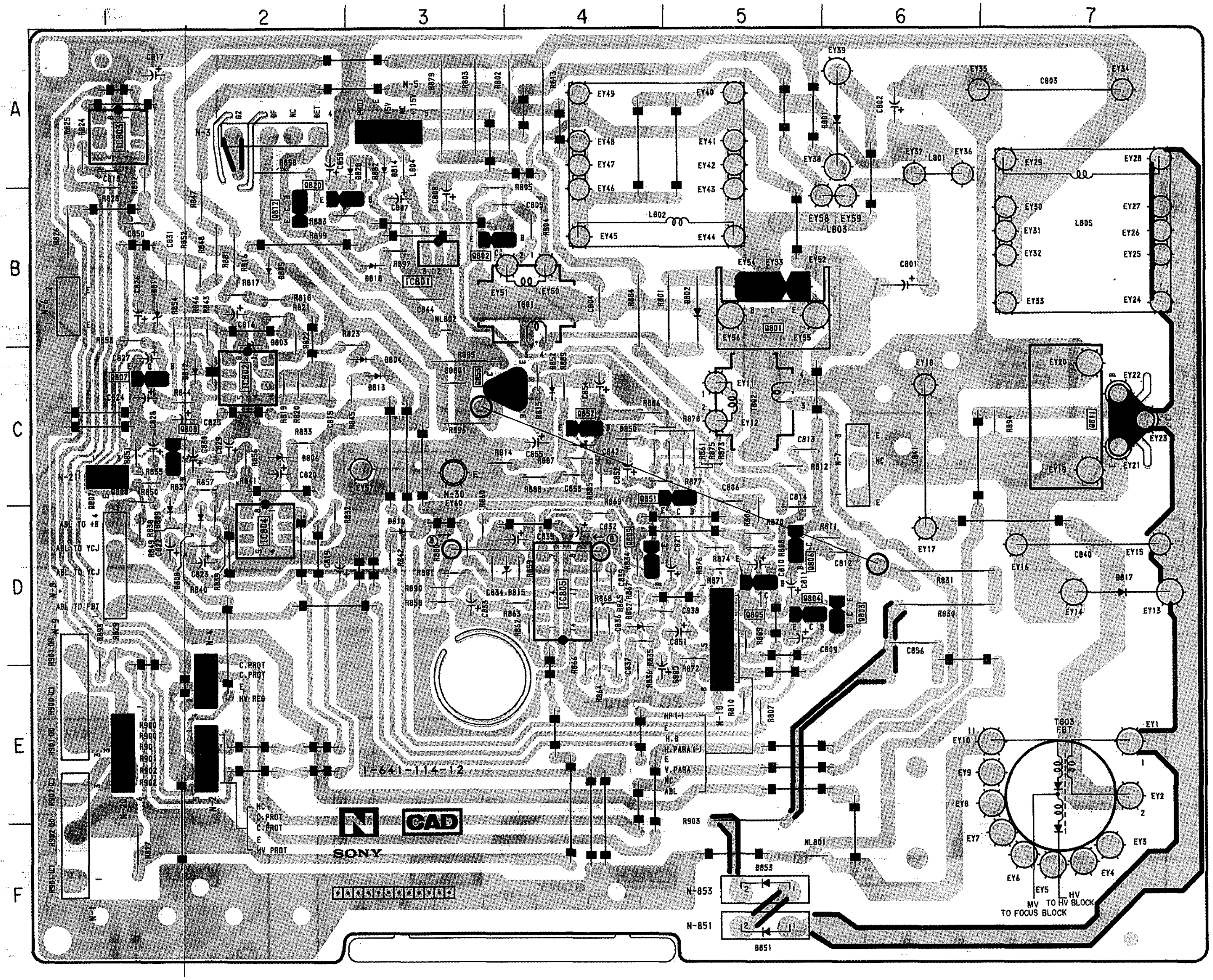
- ▨ : Pattern from the side which enables seeing
- ■ : Pattern of the rear side

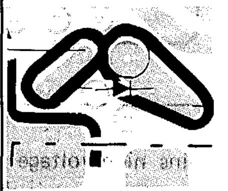
N [H. V]

— N Board —

IC	
IC801	B-3
IC802	C-2
IC803	A-1
IC804	D-2
IC805	D-4
TRANSISTOR	
Q801	B-5
Q802	B-3
Q803	D-6
Q804	D-5
Q805	D-5
Q806	D-5
Q807	C-1
Q808	C-1
Q809	D-4
Q811	C-7
Q812	B-1
Q820	B-2
Q851	C-5
Q852	C-4
Q853	C-4
DIODE	
D801	A-6
D802	B-5
D803	B-2
D804	C-3
D805	B-1
D806	C-2
D807	D-4
D808	D-1
D809	D-1
D810	D-3
D811	B-1
D812	C-1
D813	C-3
D814	A-1
D815	D-4
D817	D-7
D818	B-3
D820	A-3
D850	C-4
D852	C-4

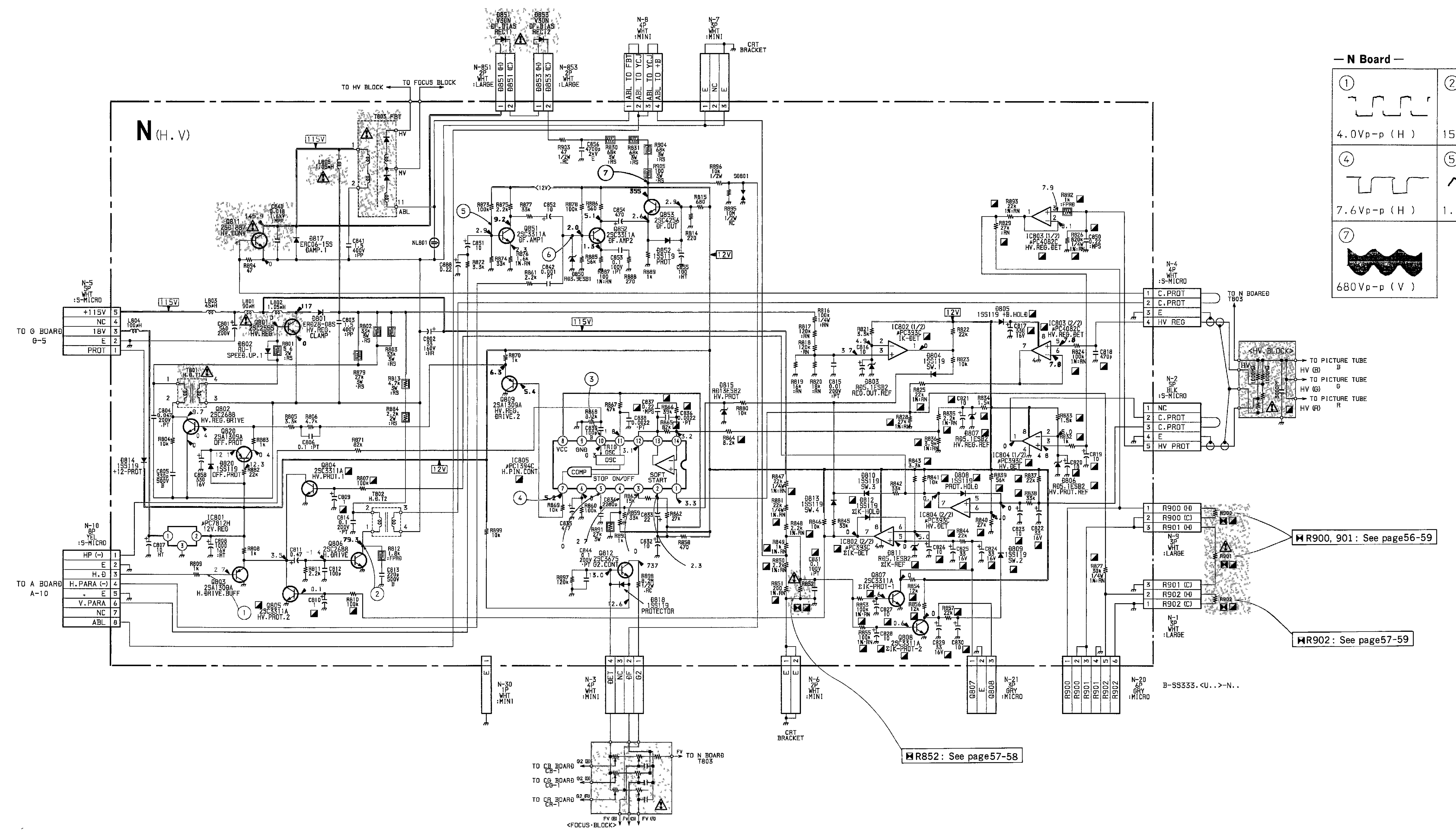
— N Board —


1
2
3
4
5
6
7
A
B
C
D
E
F
IC801
IC802
IC803
IC804
IC805
Q801
T801
T803 FBT
L801
L802
L803
L805
C801
C802
C803
C840
C856
EY1
EY2
EY3
EY4
EY5
EY6
EY7
EY8
EY9
EY10
EY13
EY14
EY15
EY16
EY17
EY18
EY19
EY20
EY21
EY22
EY23
EY24
EY25
EY26
EY27
EY28
EY29
EY30
EY31
EY32
EY33
EY34
EY35
EY36
EY37
EY38
EY39
EY40
EY41
EY42
EY43
EY44
EY45
EY46
EY47
EY48
EY49
EY50
EY51
EY54
EY55
EY56
EY58
EY59
ABL TO +B
ABL TO YCJ
ABL TO YCJ
ABL TO FBT
C.PROT
C.PROT
HV REG
HP (+)
H.B
H.PARA (-)
V.PARA
ABL
NC
C.PROT
C.PROT
HV PROT
1-641-114-12
N
CAD
SONY
N-851
N-853
NL801
R903
R831
R839
D817
MV
TO HV BLOCK
TO FOCUS BLOCK

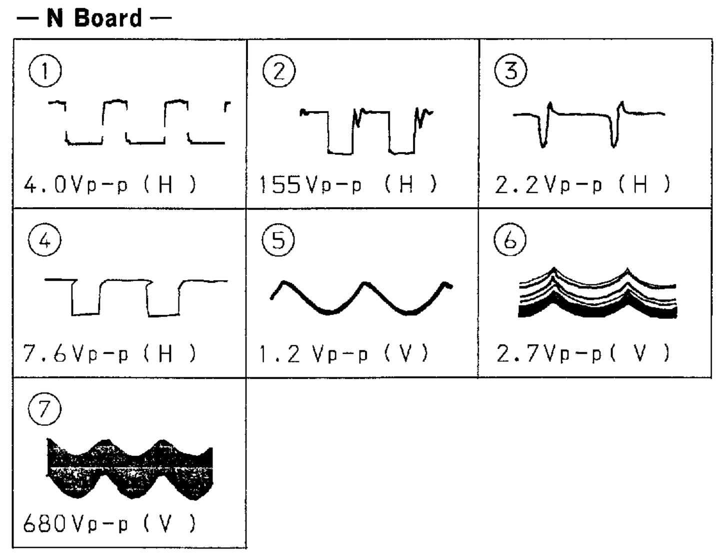


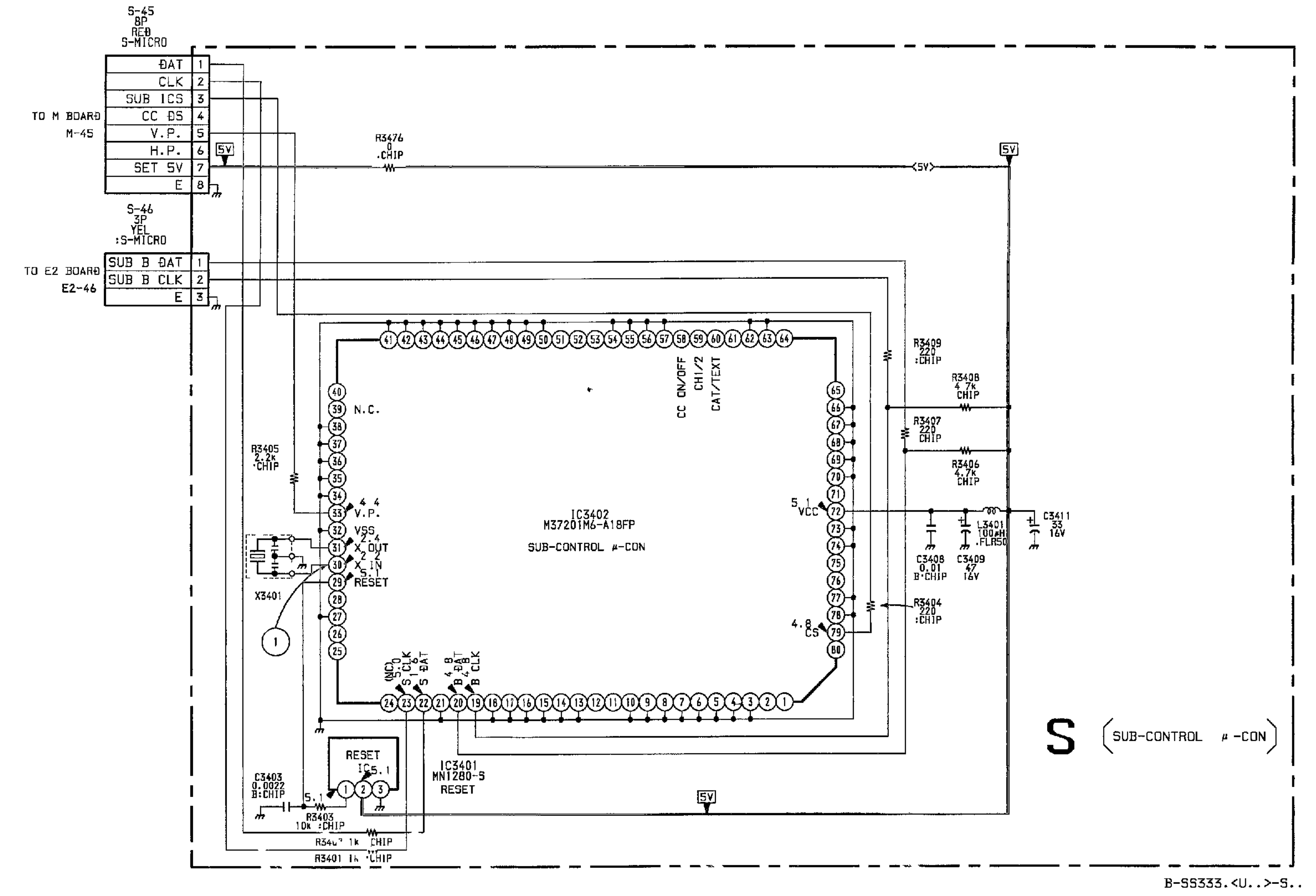
NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

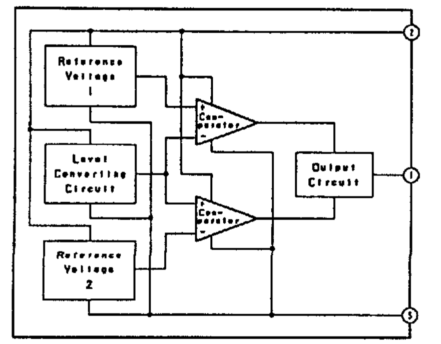

N (H.V)
TO G BOARD G-5
TO A BOARD A-10
TO HV BLOCK
TO FOCUS BLOCK
TO N BOARD T603
TO PICTURE TUBE
<HV BLOCK>
<FOCUS-BLOCK>
CRT BRACKET
R900, 901: See page56-59
R902: See page57-59
R852: See page57-58
IC805 µPC1394C HV.PIN.CONT
IC801 µPC7812H 12V.REG
IC802 µPC4558C
IC803 µPC4558C
IC804 µPC4558C
B-SS333.<U..>-N..

— N Board —

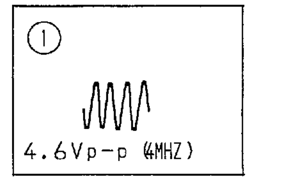



TO M BOARD M-45
TO E2 BOARD E2-46
IC3402 M37201M6-A18FP SUB-CONTROL µ-CON
IC3401 MN1280-S RESET
S (SUB-CONTROL µ-CON)
B-SS333.<U..>-S..

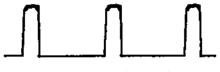
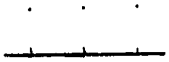
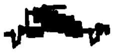
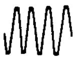
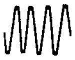
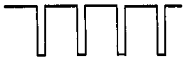
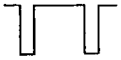
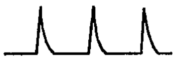
S Board IC3401 MN1280-S

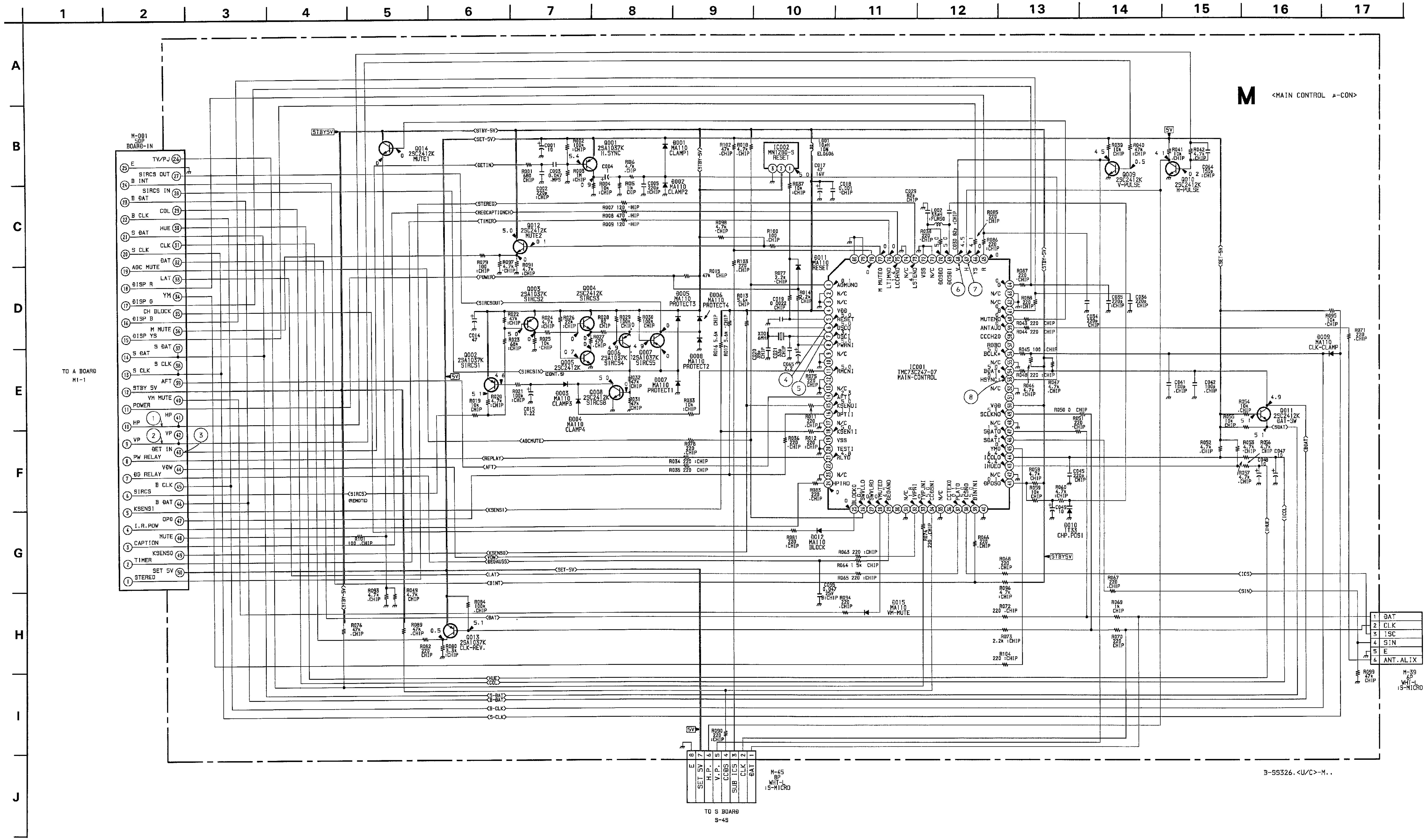

Reference Voltage 1
Level Converting Circuit
Reference Voltage 2
Comparator
Output Circuit

— S Board —



— M Board —

①  5 Vp-p (H)	②  4.2Vp-p (V)	③  2.4Vp-p (H)
④  4.7Vp-p(6MHZ)	⑤  3.3 Vp-p(6MHZ)	⑥  4.8Vp-p(V)
⑦  5 Vp-p (H)	⑧  4.5Vp-p (H)	


1
2
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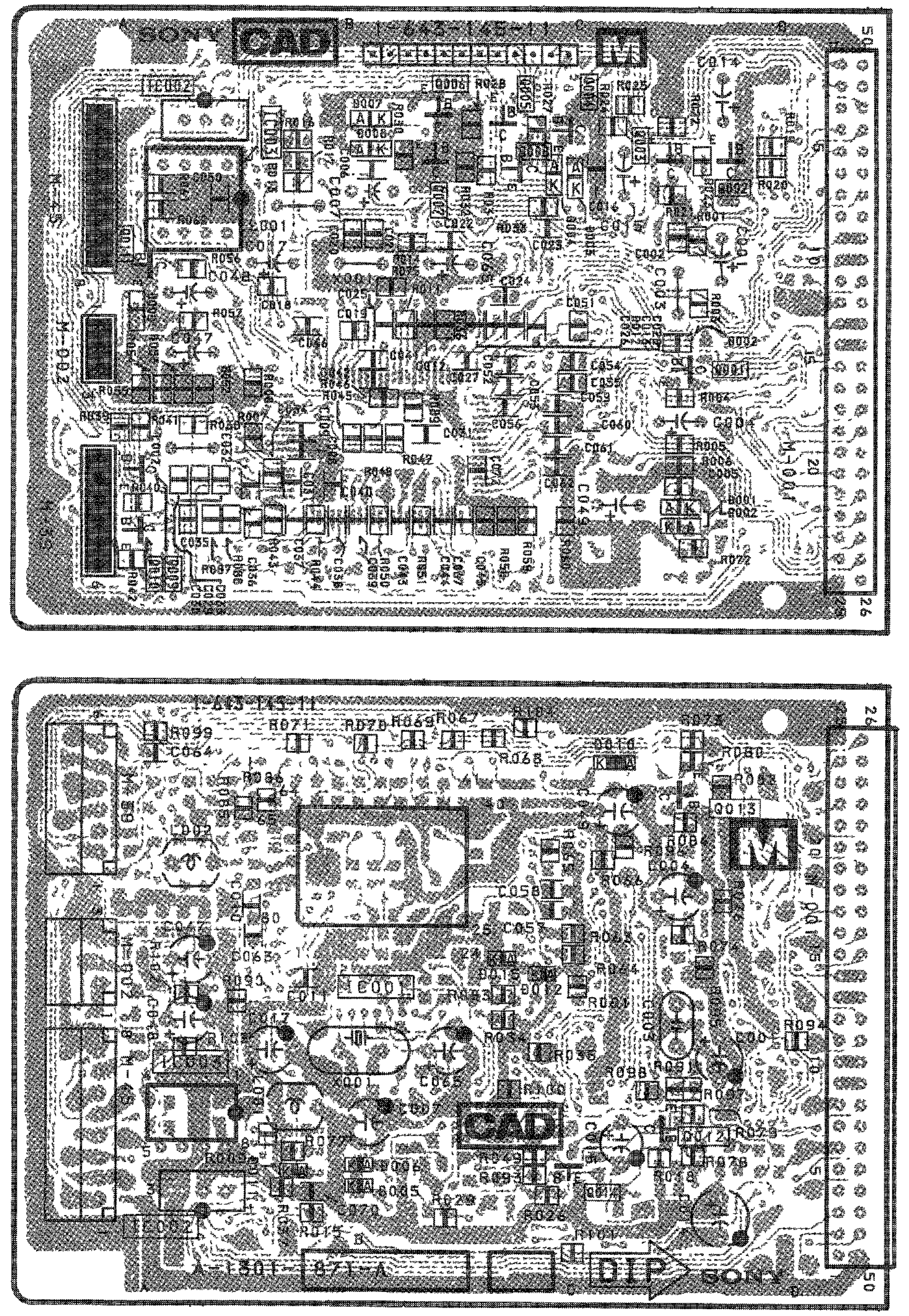
9
10
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J
M
<MAIN CONTROL µ-CON>
M-001
50P
BOARD-IN
TO A BOARD
MI-1
IC001
TMC78C247-07
MAIN-CONTROL
IC002
MN1280-S
RESET
Q001
2SA1037K
H.SYNC
Q014
2SC2412K
MUTE1
Q012
2SC2412K
MUTE2
Q009
2SC2412K
V-PULSE
Q010
2SC2412K
H-PULSE
Q011
2SC2412K
DAT-IN
Q013
2SA1037K
CLK-REV.
D001
MA110
CLAMP1
D002
MA110
CLAMP2
D003
MA110
CLAMP3
D004
MA110
CLAMP4
D005
MA110
PROTECT3
D006
MA110
PROTECT4
D007
MA110
PROTECT1
D008
MA110
PROTECT2
D009
MA110
CLK-CLAMP
D010
LT53
CHP.POS1
D011
MA110
RESET
D012
MA110
BLOCK
D015
MA110
VM-MUTE
STBY 5V
SET 5V
5V
1 DAT
2 CLK
3 ICS
4 SIN
5 E
6 ANT.ALIX
M-39
6P
WHT-L
:S-MICRO
8 E
7 SET 5V
6 H.P.
5 V.P.
4 CG6
3 SUB ICS
2 CLK
1 DAT
M-45
8P
WHT-L
:S-MICRO
TO S BOARD
S-45
B-SS326.<U/C>-M..

M

[MAIN CONTROL, MICRO COMPUTER]

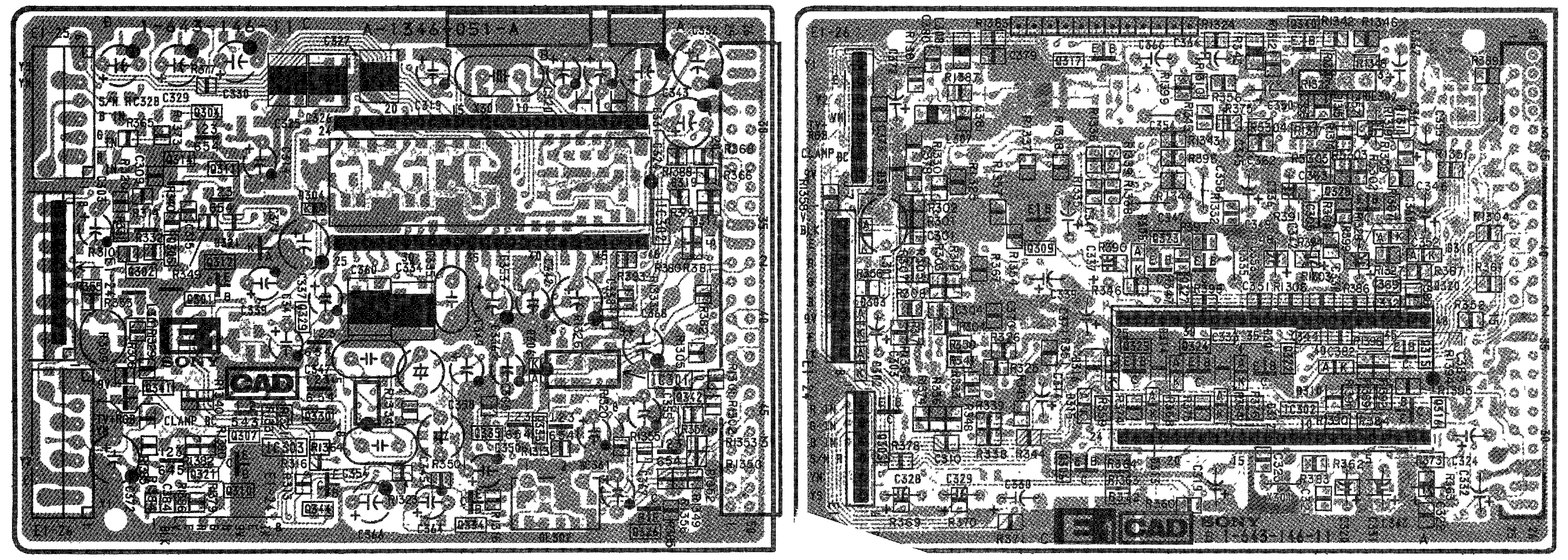
— M Board —


CAD
M
SONY
IC001
IC002
CAD
DIP
M

- ▭: Pattern from the side which enables seeing
- ▨: Pattern of the rear side

E1 [Y/C JUNGLE]

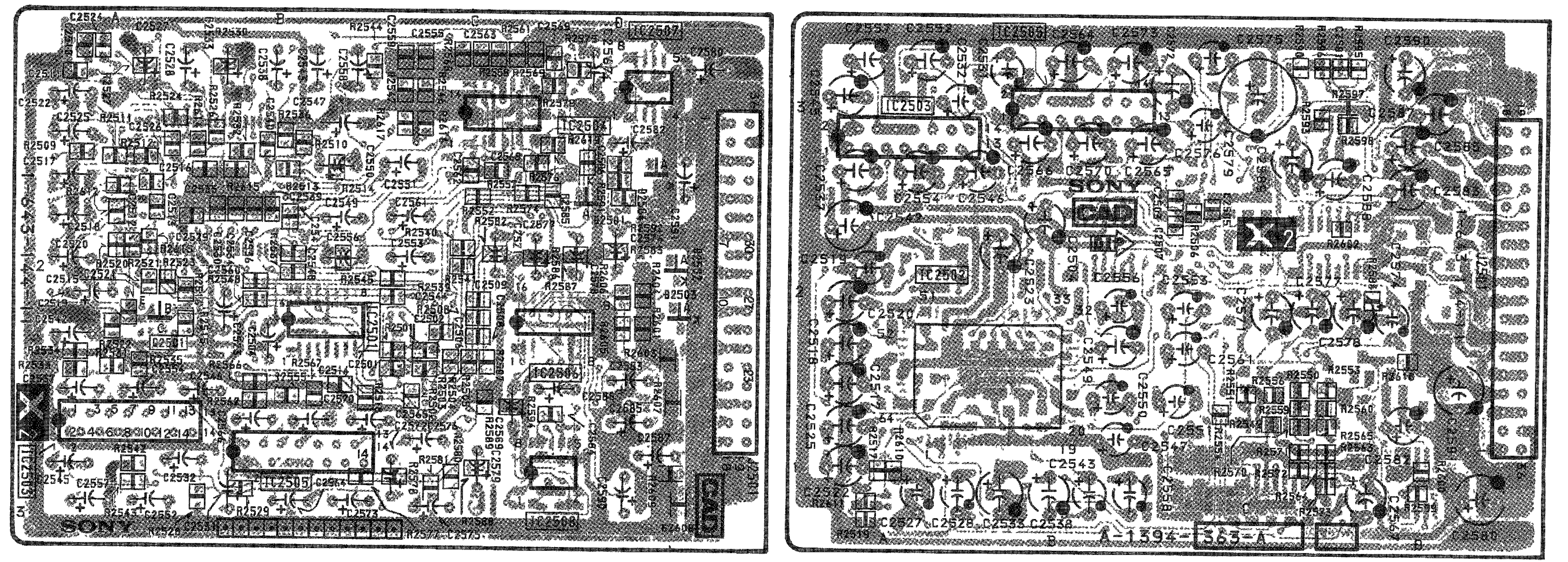
— E1 Board —



- ▨: Pattern from the side which enables seeing
- ▨: Pattern of the rear side

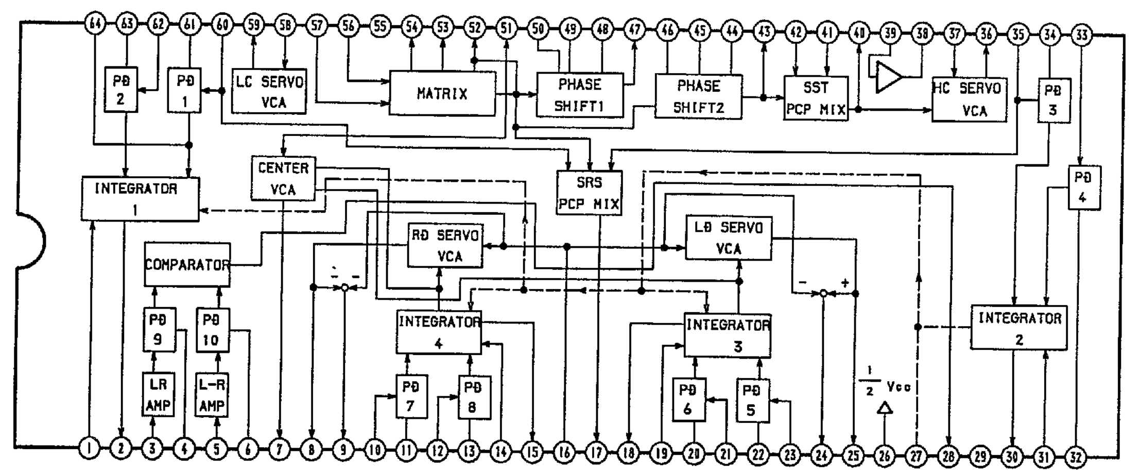
X2 [SRS SURROUND]

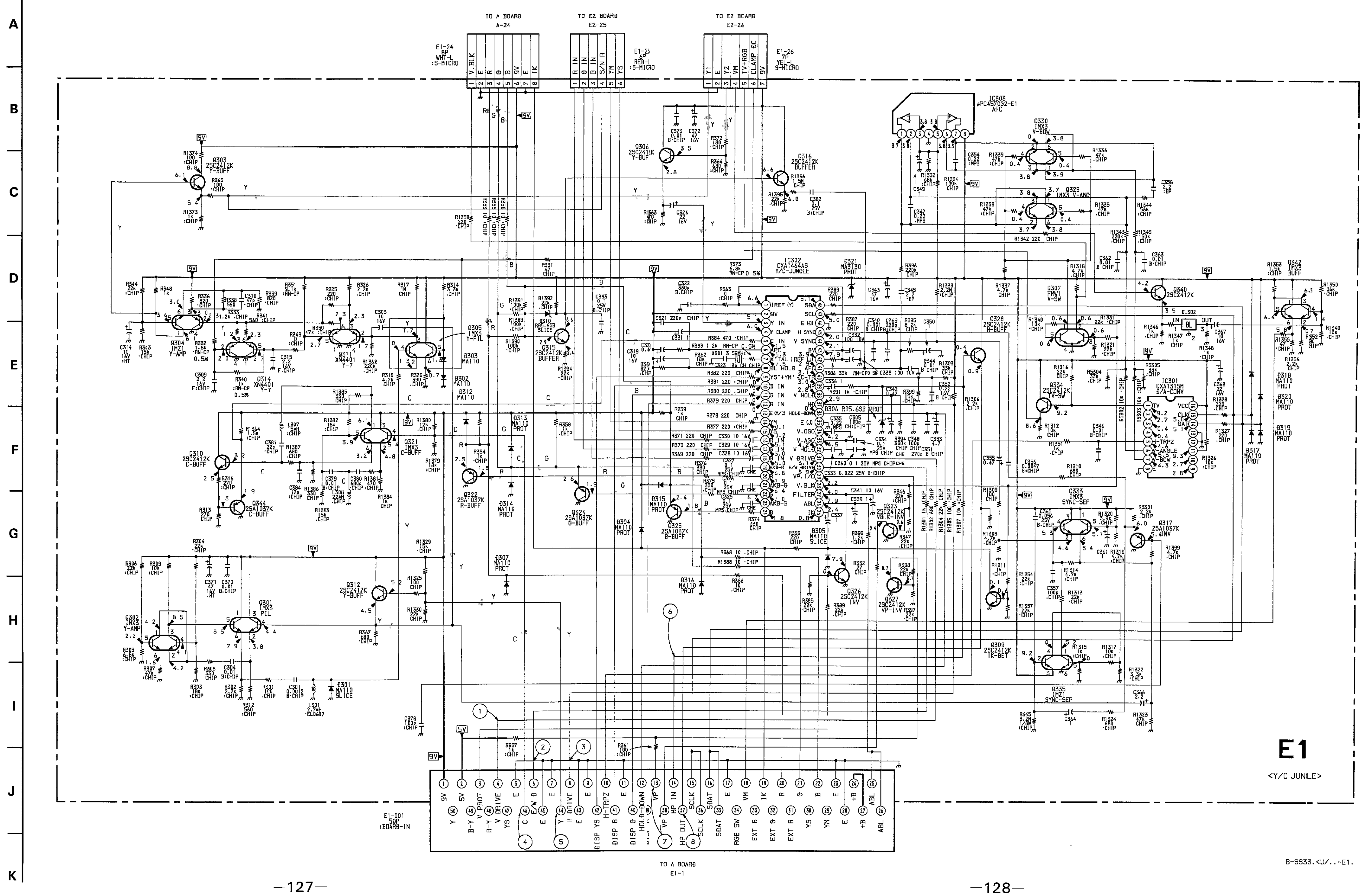
— X2 Board —



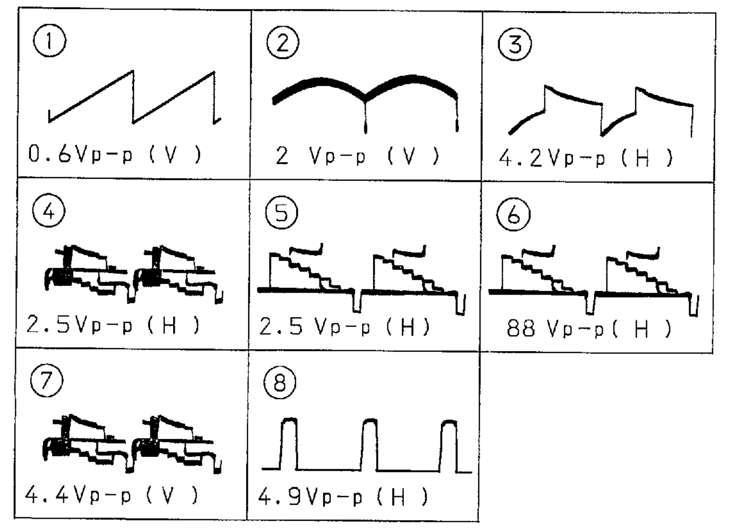
- ▨: Pattern from the side which enables seeing
- ▨: Pattern of the rear side

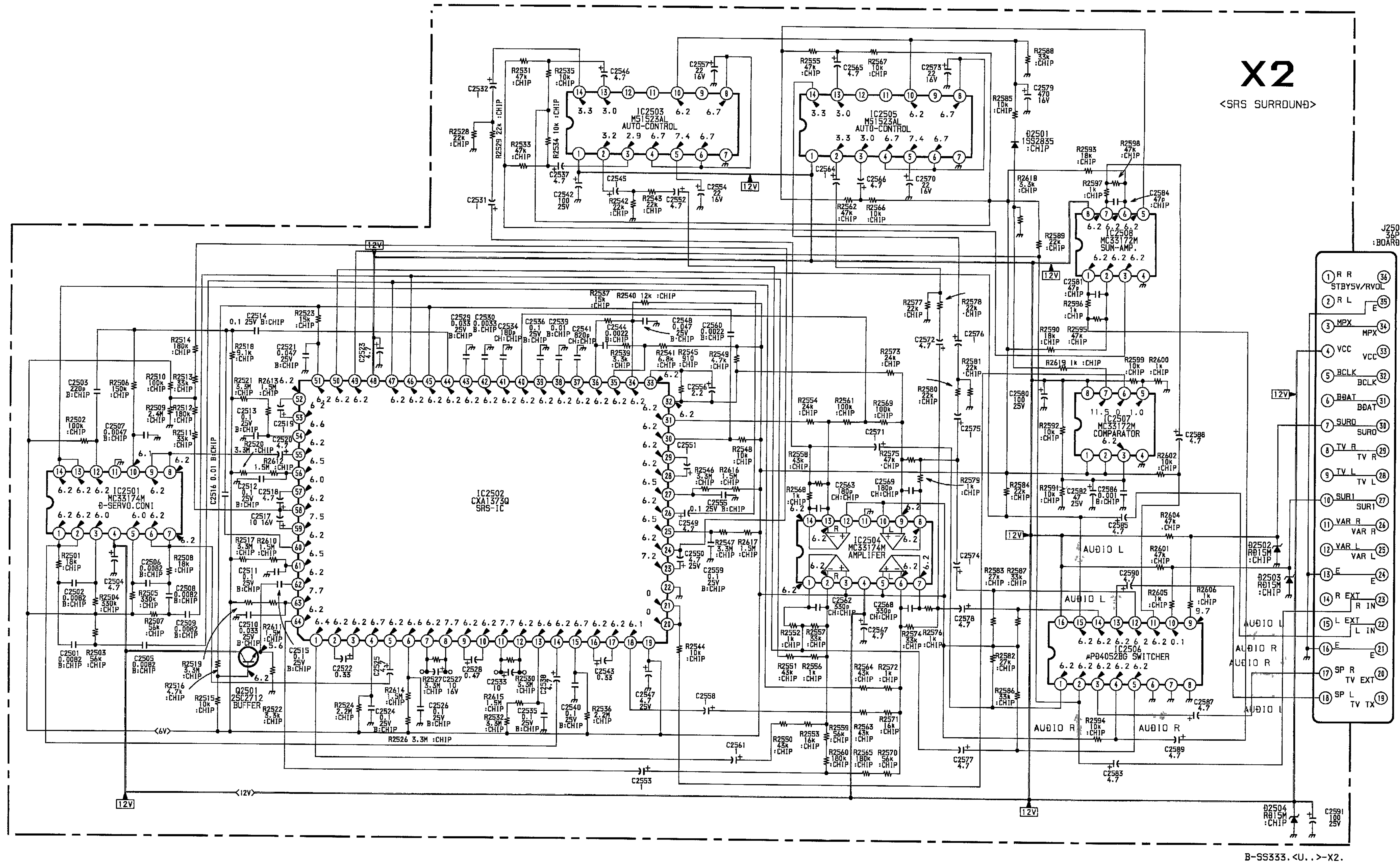
X2 Board IC2502 CXA1373Q

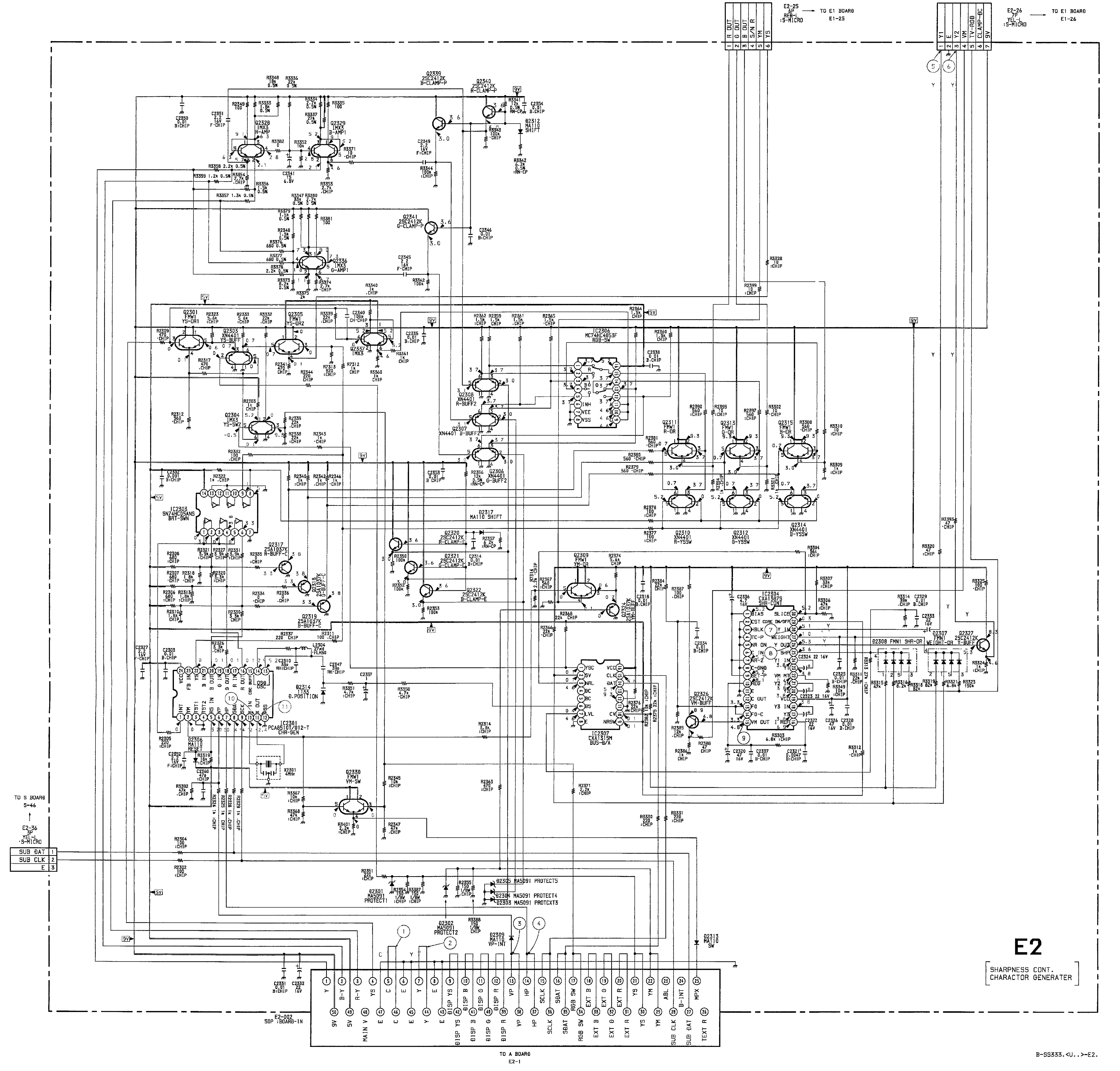

INTEGRATOR 1
CENTER VCA
LC SERVO VCA
MATRIX
PHASE SHIFT1
PHASE SHIFT2
SST PCP MIX
RC SERVO VCA
SRS PCP MIX
RQ SERVO VCA
LQ SERVO VCA
COMPARATOR
INTEGRATOR 4
INTEGRATOR 3
INTEGRATOR 2
LR AMP
L-R AMP


TO A BOARD A-24
TO E2 BOARD E2-25
TO E2 BOARD E2-26
IC302 CXA1214AS Y/C JUNGLE
E1
<Y/C JUNLE>
TO A BOARD E1-1
B-SS33.<U/..-E1.

— E1 Board —

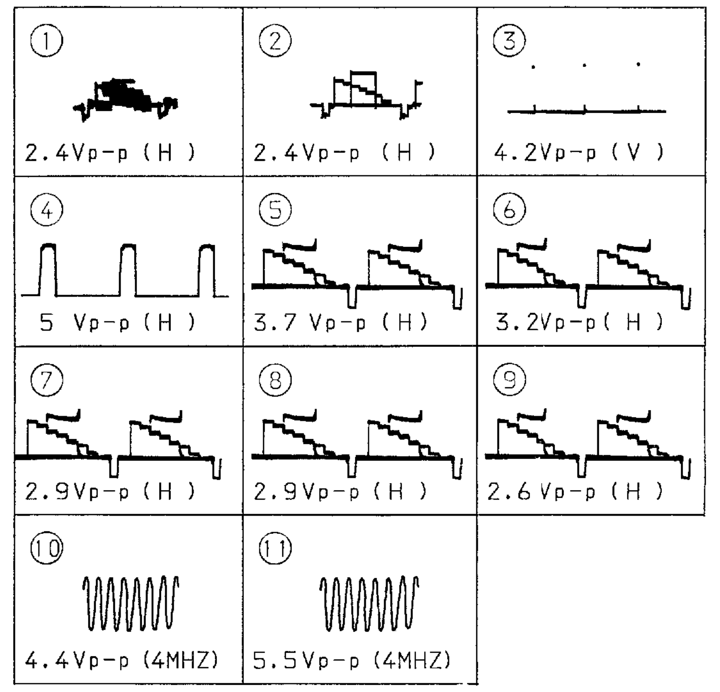

①
0.6Vp-p (V)
②
2 Vp-p (V)
③
4.2Vp-p (H)
④
2.5Vp-p (H)
⑤
2.5 Vp-p (H)
⑥
88 Vp-p (H)
⑦
4.4Vp-p (V)
⑧
4.9Vp-p (H)


X2
<SRS SURROUND>
IC2502 CXA1373Q SRS-IC
AUDIO L
AUDIO R
TO A BOARD X2-1
B-SS33.<U..>-X2.



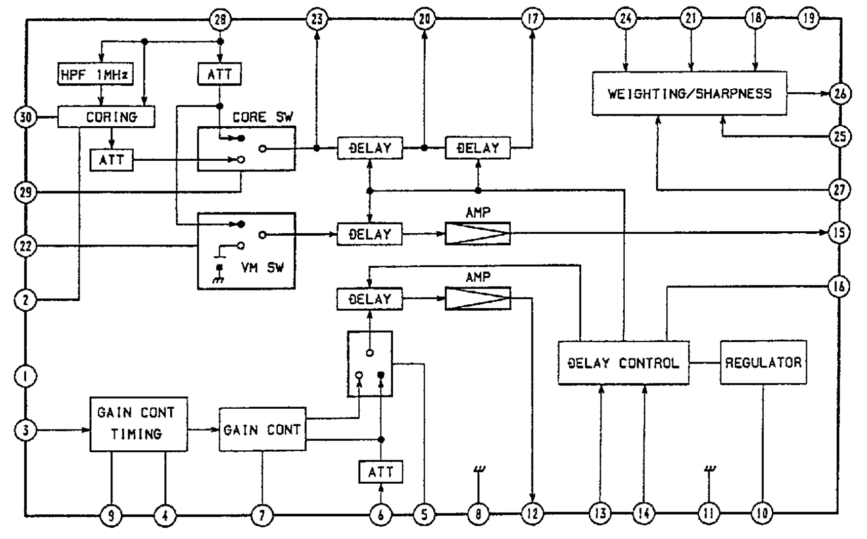
E2
SHARPNESS CONT.
CHARACTOR GENERATER
TO E1 BOARD E1-23
TO E1 BOARD E1-26
TO S BOARD S-46
SUB DAT
SUB CLK
TO A BOARD E2-1
B-SS333.<U..>-E2.

— E2 Board —



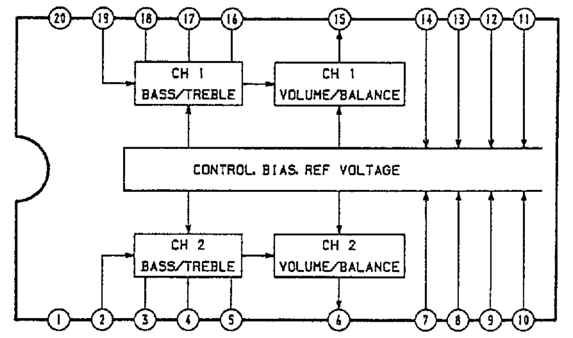
①
2.4Vp-p (H)
②
2.4Vp-p (H)
③
4.2Vp-p (V)
④
5 Vp-p (H)
⑤
3.7 Vp-p (H)
⑥
3.2Vp-p (H)
⑦
2.9Vp-p (H)
⑧
2.9Vp-p (H)
⑨
2.6Vp-p (H)
⑩
4.4Vp-p (4MHZ)
⑪
5.5Vp-p (4MHZ)

E2 Board IC2304 CXA1387S

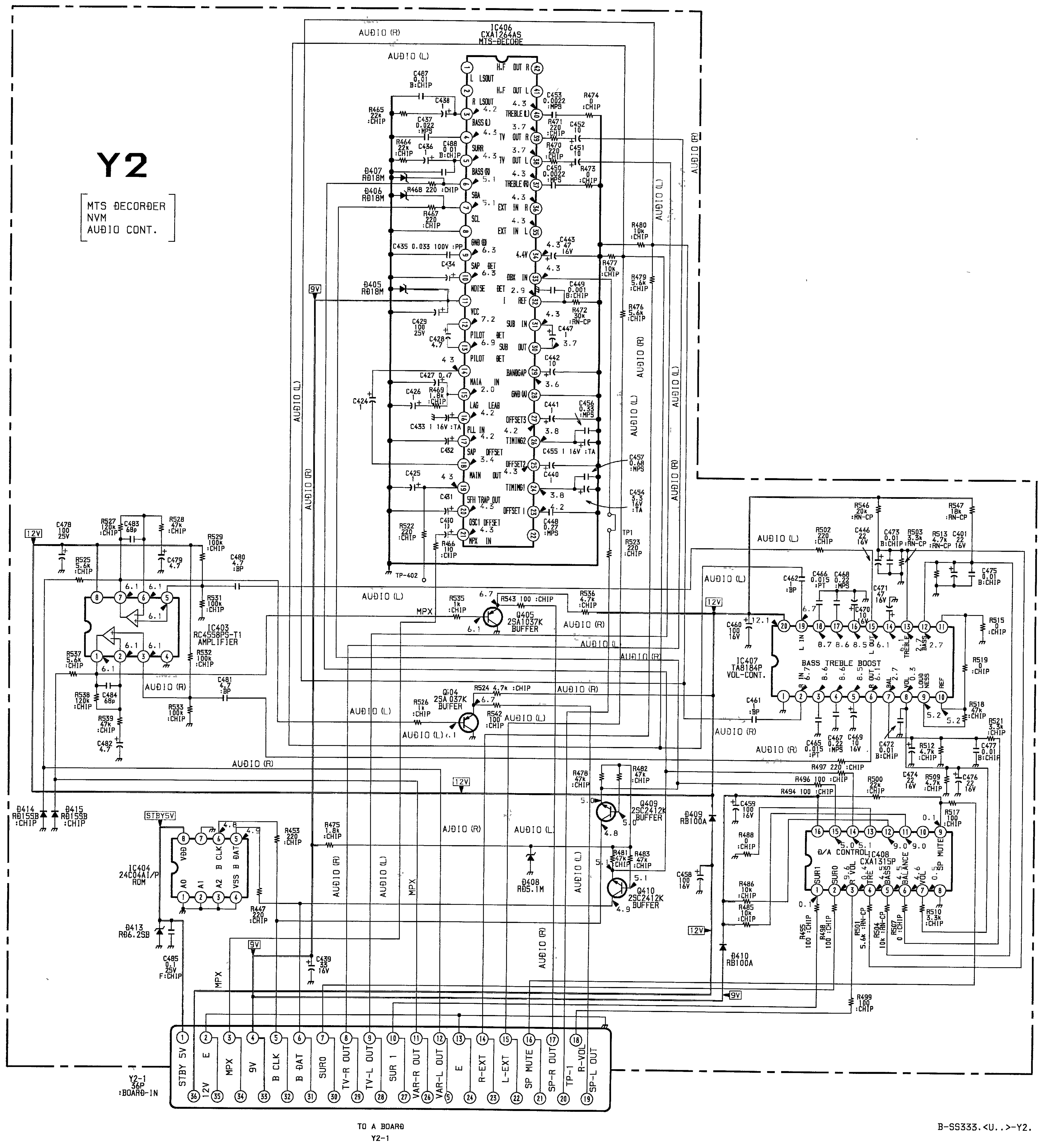


HPF 1MHz
CORING
ATT
ATT
CORE SW
VM SW
DELAY
DELAY
DELAY
AMP
AMP
WEIGHTING/SHARPNESS
GAIN CONT TIMING
GAIN CONT
ATT
DELAY CONTROL
REGULATOR

Y2 Board IC407 TA8184P



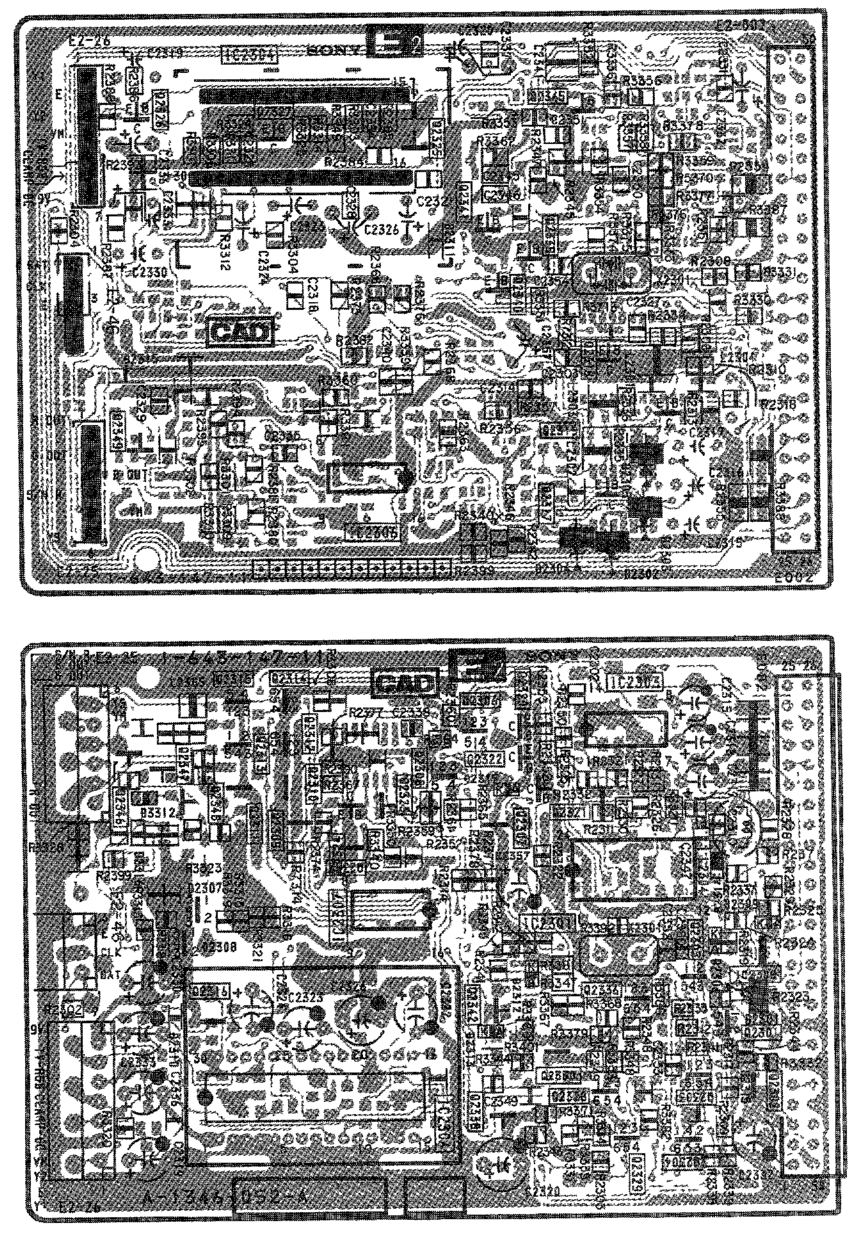
CH 1 BASS/TREBLE
CH 1 VOLUME/BALANCE
CONTROL BIAS REF VOLTAGE
CH 2 BASS/TREBLE
CH 2 VOLUME/BALANCE



Y2
MTS DECORDER
NVM
AUDIO CONT.
IC406 CXA1244AS MTS-DECODE
IC403 RC4558PS-T1 AMPLIFIER
IC407 TA8184P VOL-CONT.
BASS TREBLE BOOST
IC404 24C04A1/P ROM
IC408 CXA1315P D/A CONTROL
Q405 2SA1037K BUFFER
Q104 2SA 037K BUFFER
Q409 2SC2412K BUFFER
Q410 2SC2412K BUFFER
TO A BOARD Y2-1
B-SS333.<U..>-Y2.

E2 [SHARPNESS CONTROL, CHARACTOR GENERATER]

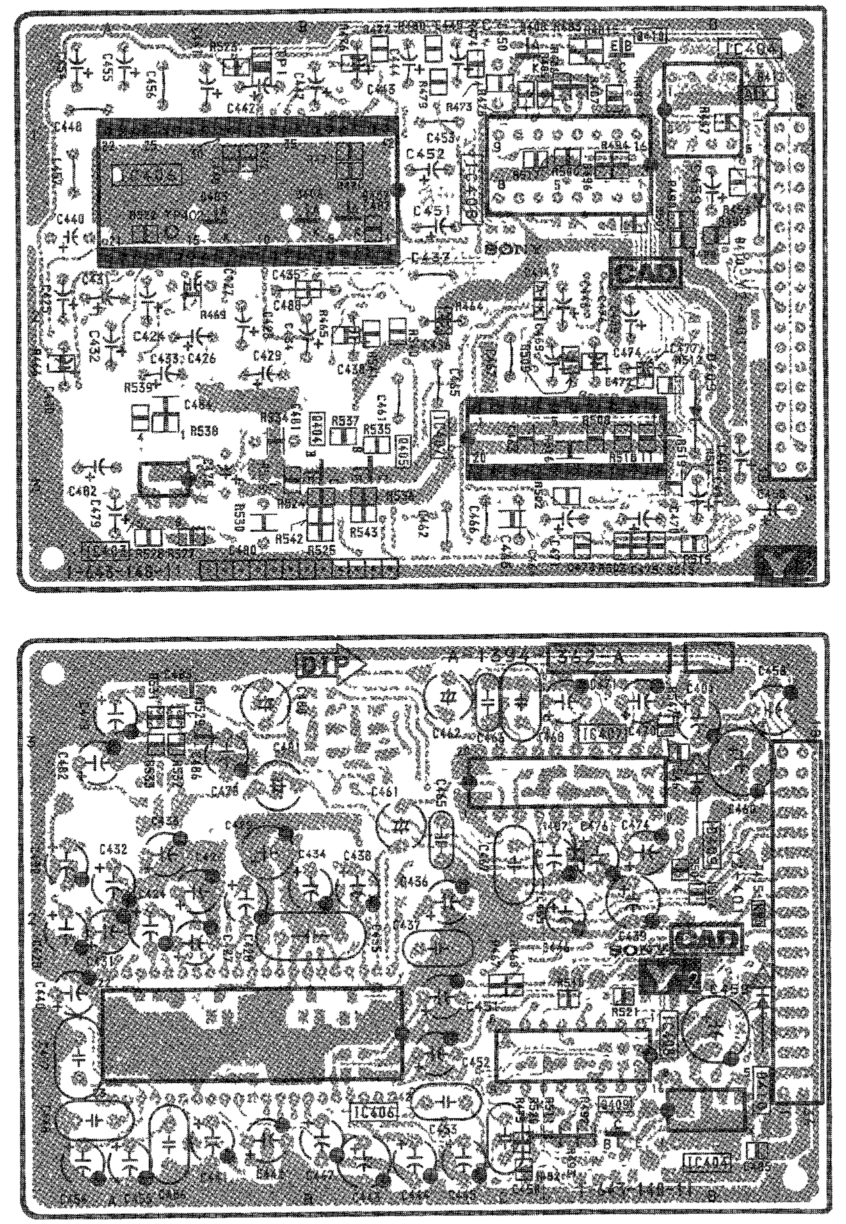
— E2 Board —


SONY
CAD
A-1346-052-A

- . Pattern from the side which enables seeing
- ▨: Pattern of the rear side

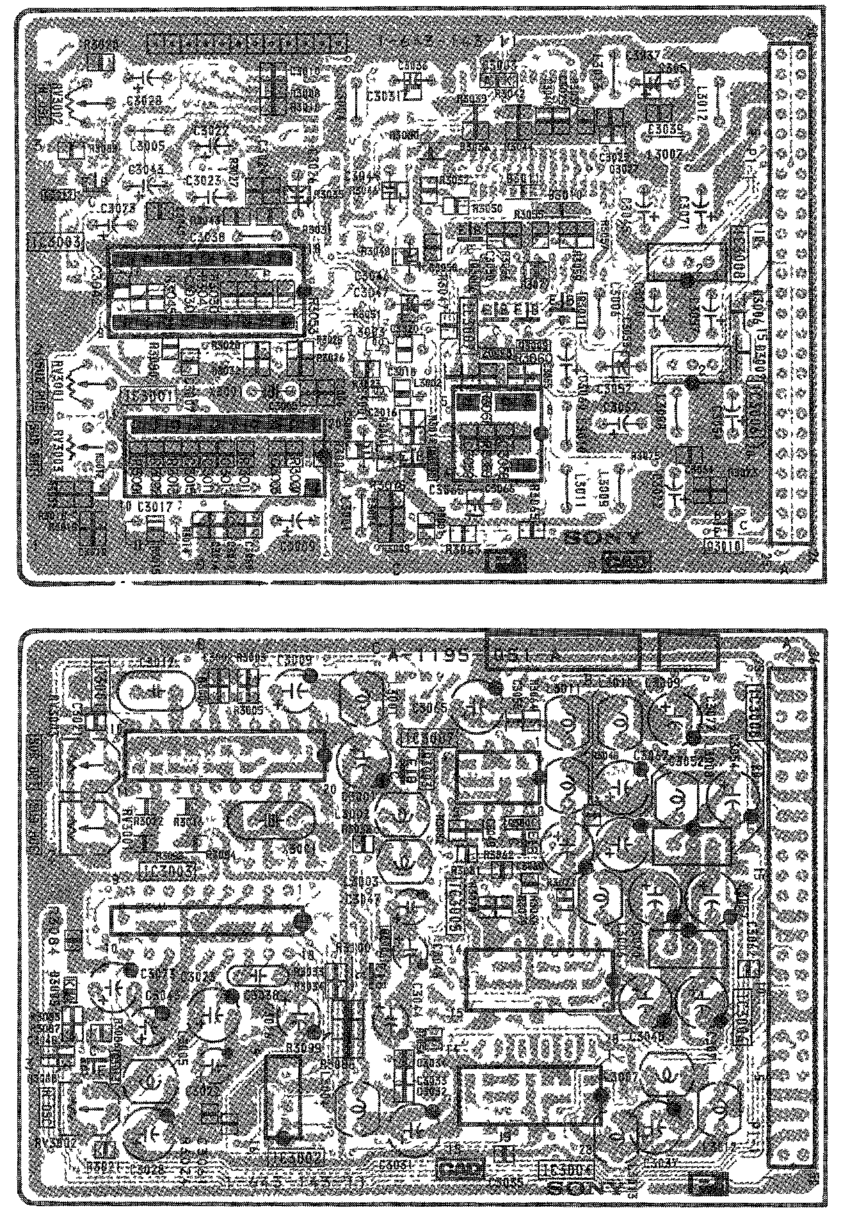
Y2 [MTS DECORDER, NVM, AUDIO CONTROL]

— Y2 Board —

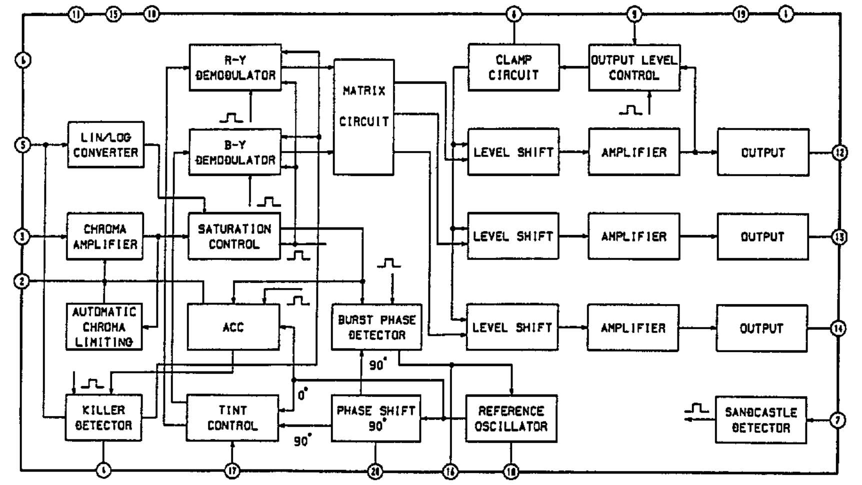


P1 [PICTURE IN PICTURE CIRCUIT]

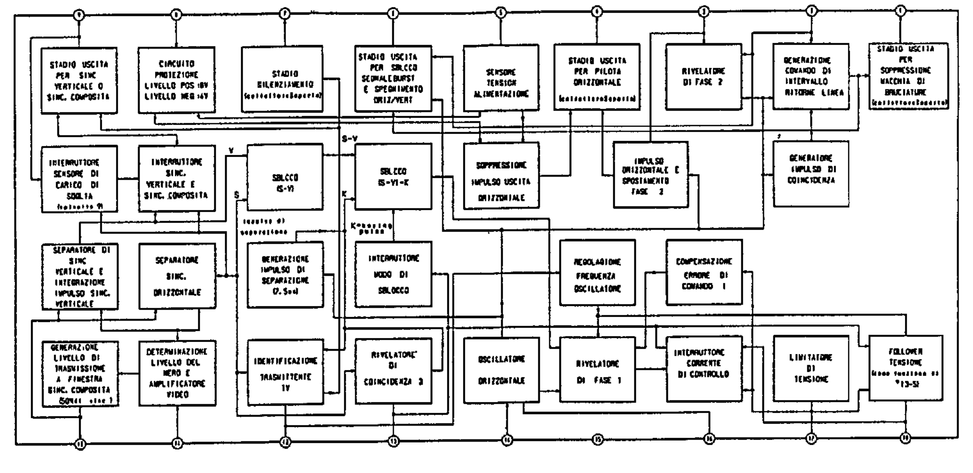
— P1 Board —

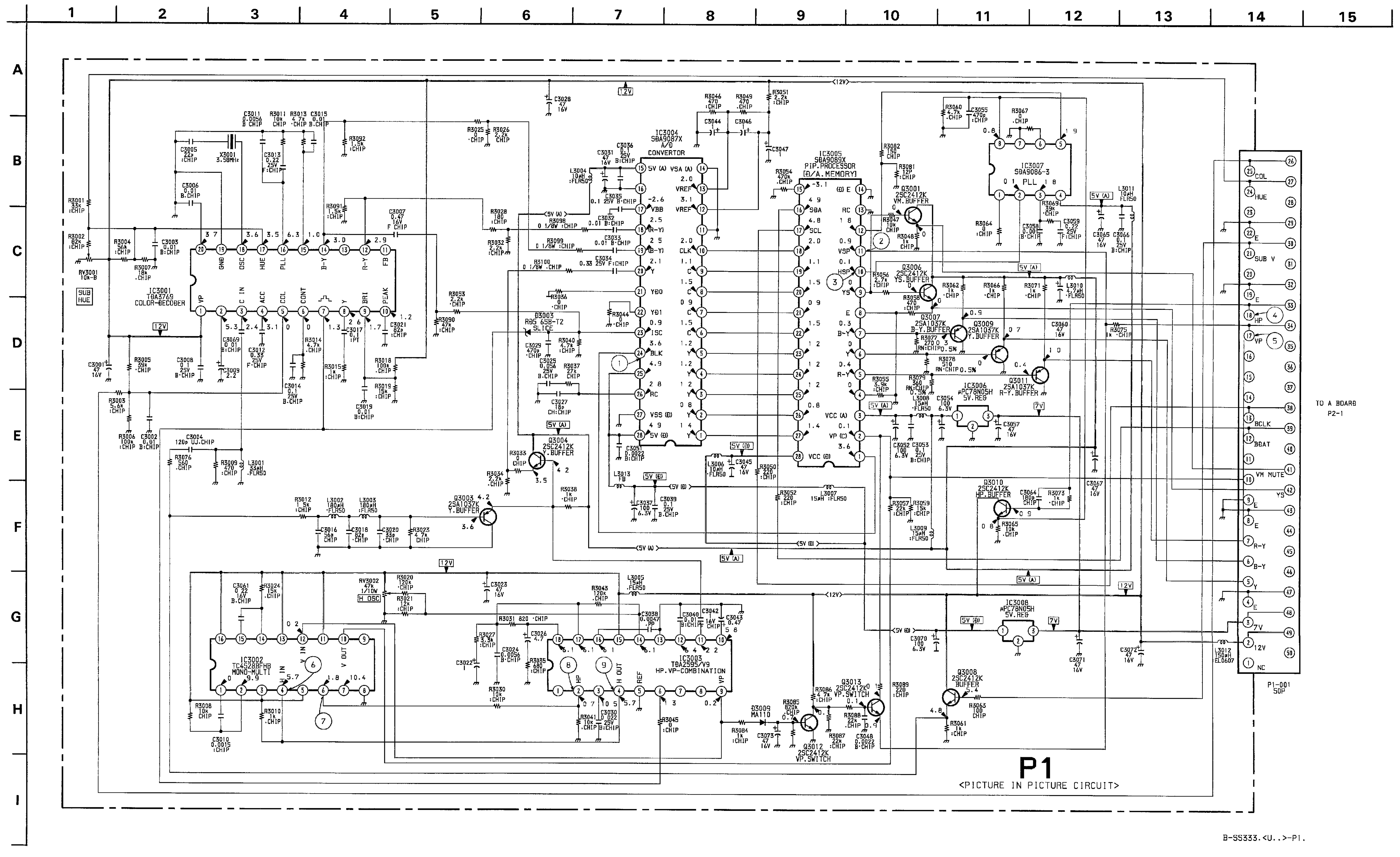


P1 Board IC3001 TDA3769


LIN/LOG CONVERTER
CHROMA AMPLIFIER
AUTOMATIC CHROMA LIMITING
KILLER DETECTOR
R-Y DEMODULATOR
B-Y DEMODULATOR
SATURATION CONTROL
ACC
TINT CONTROL
MATRIX CIRCUIT
BURST PHASE DETECTOR
PHASE SHIFT 90°
REFERENCE OSCILLATOR
CLAMP CIRCUIT
OUTPUT LEVEL CONTROL
LEVEL SHIFT
AMPLIFIER
OUTPUT
SANDCASTLE DETECTOR
90°
0°

P1 Board IC3003 TDA2595

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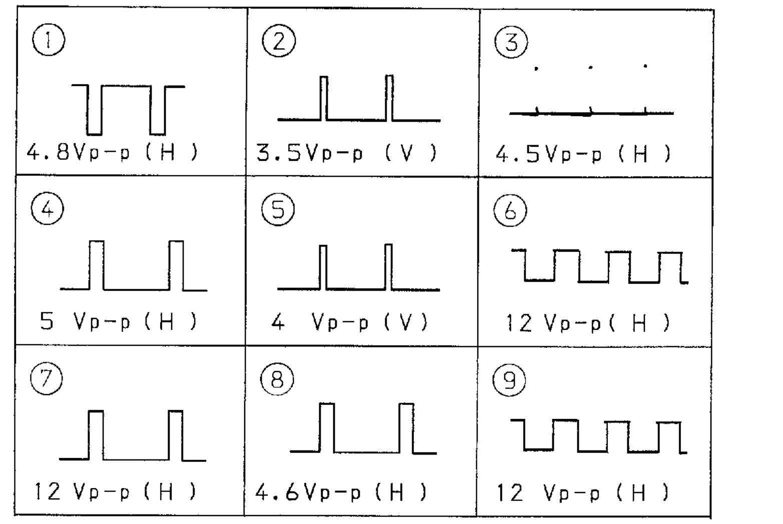
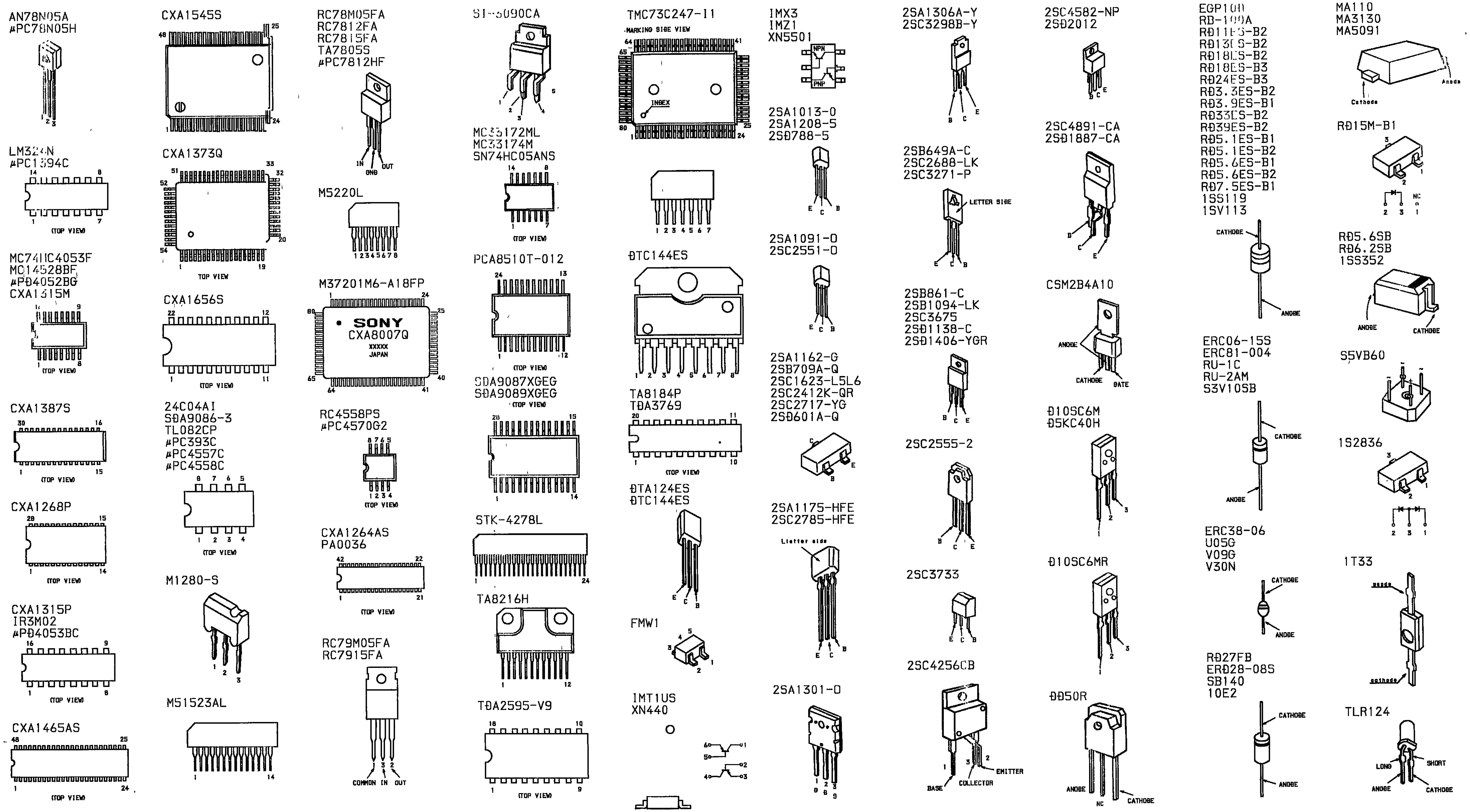
12
13
14
15
A
B
C
D
E
F
G
H
I
IC3001 TDA3769 COLOR-DECODER
IC3002 TC4528BFHB MONO-MULTI
IC3003 TDA2595/V9 HP.VP-COMBINATION
IC3004 SDA9087X A/D CONVERTOR
IC3005 SDA9089X PIP.PROCESSOR [D/A.MEMORY]
IC3007 SDA9086-3 PLL
Q3001 2SC2412K VM.BUFFER
Q3003 2SA1037K Y.BUFFER
Q3004 2SC2412K Y.BUFFER
Q3006 2SC2412K YS.BUFFER
Q3007 2SA1037K B-Y.BUFFER
Q3008 2SC2412K BUFFER
Q3009 2SA1037K Y.BUFFER
Q3012 2SC2412K VP.SWITCH
Q3013 2SC2412K VP.SWITCH
D3003 RD5.6SB-T2 SLICE
D3009 MA110
X3001 3.58MHz
RV3001 10k-B
SUB HUE
RV3002 47k 1/10W
H OSC
12V
5V (A)
5V (D)
COL
HUE
SUB V
HP
VP
BCLK
BDAT
VM MUTE
YS
E
R-Y
B-Y
Y
7V
12V
NC
P1-001 50P
TO A BOARD P2-1
P1
<PICTURE IN PICTURE CIRCUIT>
8-55333.<U..>-P1.

— P1 Board —


①
4.8Vp-p (H)
②
3.5Vp-p (V)
③
4.5Vp-p (H)
④
5 Vp-p (H)
⑤
4 Vp-p (V)
⑥
12 Vp-p (H)
⑦
12 Vp-p (H)
⑧
4.6Vp-p (H)
⑨
12 Vp-p (H)

6-5. SEMICONDUCTORS


(TOP VIEW)
TOP VIEW
MARKING SIDE VIEW
INDEX
SONY
CXA8007Q
XXXXX
JAPAN
IN
GND
OUT
COMMON
NPN
PNP
LETTER SIDE
Letter side
E
C
B
BASE
COLLECTOR
EMITTER
CATHODE
ANODE
GATE
NC
LONG
SHORT
anode
cathode

AN78N05A
μPC78N05H

LM324N
μPC1394C

MC74HC4053F
MC14528BF
μPD4052BG
CXA1315M

CXA1387S

CXA1268P

CXA1315P
IR3M02
μPD4053BC

CXA1465AS

CXA1545S

CXA1373Q

CXA1656S

24C04AI
SDA9086-3
TL082CP
μPC393C
μPC4557C
μPC4558C

M1280-S

M51523AL

RC78M05FA
RC7812FA
RC7815FA
TA7805S
μPC7812HF

M5220L

M37201M6-A18FP

RC4558PS
μPC4570G2

CXA1264AS
PA0036

RC79M05FA
RC7915FA

SI-5090CA

MC33172ML
MC33174M
SN74HC05ANS

PCA8510T-012

SDA9087XGEG
SDA9089XGEG

STK-4278L

TA8216H

TDA2595-V9

TMC73C247-11

DTC144ES

TA8184P
TDA3769

DTA124ES
DTC144ES

FMW1

IMT1US
XN440

IMX3
IMZ1
XN5501

2SA1013-O
2SA1208-S
2SD788-S

2SA1091-O
2SC2551-O

2SA1162-G
2SB709A-Q
2SC1623-L5L6
2SC2412K-QR
2SC2717-YG
2SD601A-Q

2SA1175-HFE
2SC2785-HFE

2SA1301-O

2SA1306A-Y
2SC3298B-Y

2SB649A-C
2SC2688-LK
2SC3271-P

2SB861-C
2SB1094-LK
2SC3675
2SD1138-C
2SD1406-YGR

2SC2555-2

2SC3733

2SC4256CB

2SC4582-NP
2SD2012

2SC4891-CA
2SD1887-CA

CSM2B4A10

D10SC6M
D5KC40H

D10SC6MR

DD50R

EGP10H
RB-100A
RD11ES-B2
RD13ES-B2
RD18ES-B2
RD18ES-B3
RD24ES-B3
RD3.3ES-B2
RD3.9ES-B1
RD33ES-B2
RD39ES-B2
RD5.1ES-B1
RD5.1ES-B2
RD5.6ES-B1
RD5.6ES-B2
RD7.5ES-B1
1SS119
1SV113

ERC06-15S
ERC81-004
RU-1C
RU-2AM
S3V10SB

ERC38-06
U05G
V09G
V30N

RD27FB
ERD28-08S
SB140
10E2

MA110
MA3130
MA5091

RD15M-B1

RD5.6SB
RD6.2SB
1SS352

S5VB60

1S2836

1T33

TLR124

SECTION 7
EXPLODED VIEWS

NOTE:

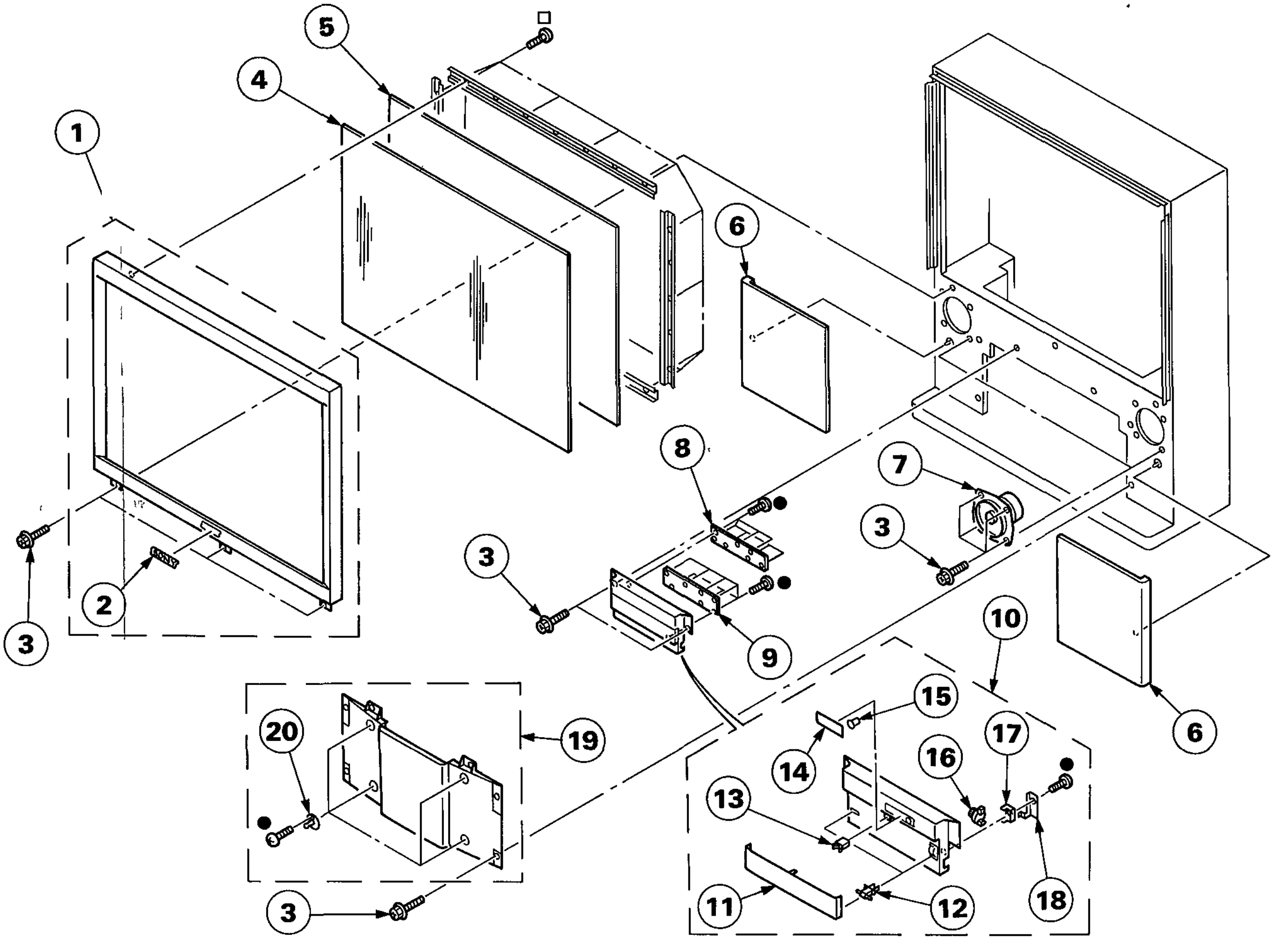
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

7-1-1. SCREEN FRAME AND CONTROL PANEL (KPR-46EXR15)

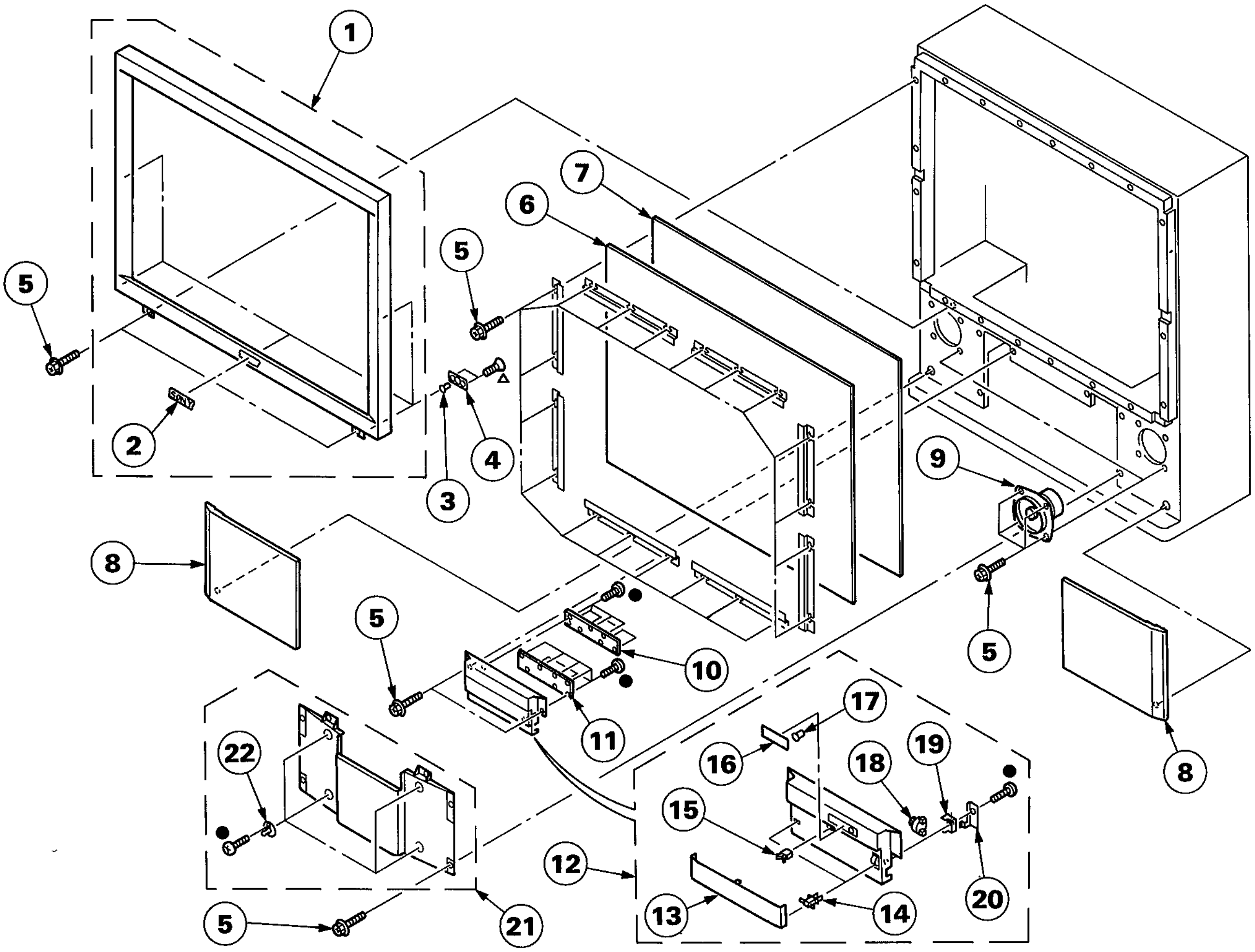
●: BVTP3×12 7-685-648-79
□: BVTP4×12 7-685-661-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4030-623-1	FRAME ASSY, SCREEN	2
2	4-381-079-01	EMBLEM (NO.10), SONY	
3	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
4	4-037-360-11	PLATE (L), DIFFUSION	
5	4-037-359-11	PLATE (F), DIFFUSION	
6	X-4030-639-1	GRILLE ASSY, SPEAKER	
7	1-544-768-11	SPEAKER (13CM) (COAXIAL)	
8	*1-643-591-12	H1 BOARD	
9	*1-643-592-12	H2 BOARD	
10	X-4030-617-1	PANEL ASSY, CONTROL	11~18
11	4-036-511-11	LID, CONTROL	
12	3-703-035-11	SHAFT, LID	
13	4-392-036-01	CATCHER, PUSH	
14	4-036-510-01	PANEL, INDICATOR	
15	*4-374-987-01	GUIDE, LIGHT	
16	3-720-417-01	DAMPER, OIL	
17	4-397-047-01	HOLDER, DAMPER	
18	4-036-513-01	SPRING, LID	
19	X-4030-618-1	COVER ASSY, FRONT	20
20	4-843-806-00	STRIKE	

7-1-2. SCREEN FRAME AND CONTROL PANEL (KPR-53EXR15)

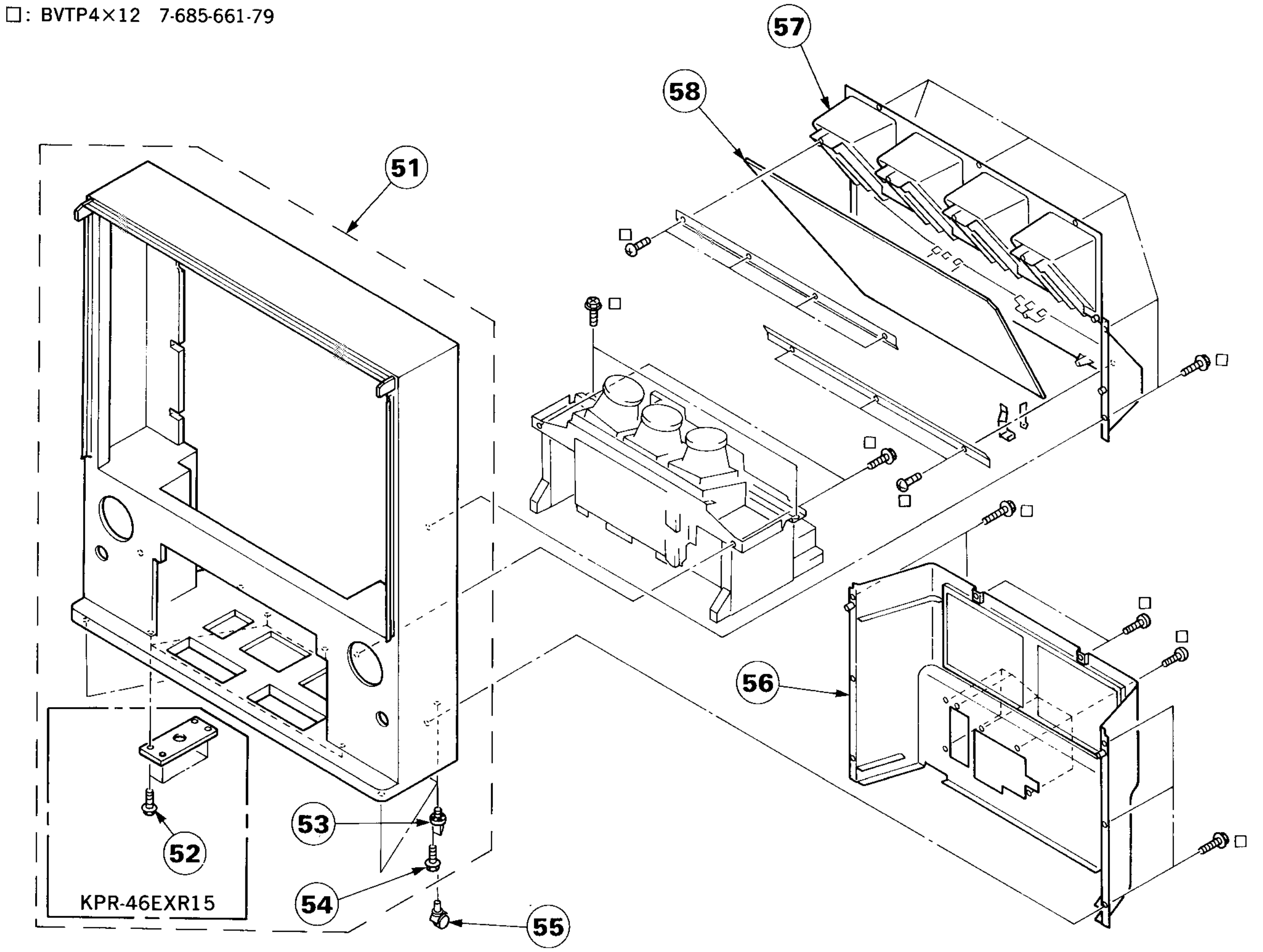
●: BVTP3×12 7-685-648-79
△: KTP3×10 7-685-247-14



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4030-616-1	FRAME ASSY, SCREEN	2
2	4-381-079-21	EMBLEM (NO.10), SONY	
3	4-838-452-00	STRIKE	
4	4-838-453-00	SUPPORT	
5	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
6	4-036-466-11	PLATE (L), DIFFUSION	
7	4-036-469-11	PLATE (F), DIFFUSION	
8	X-4030-637-1	GRILLE ASSY, SPEAKER	
9	1-544-768-11	SPEAKER (13CM) (COAXIAL)	
10	*1-643-591-12	H1 BOARD	
11	*1-643-592-12	H2 BOARD	
12	X-4030-617-1	PANEL ASSY, CONTROL	13~20
13	4-036-511-11	LID, CONTROL	
14	3-703-035-11	SHAFT, LID	
15	4-392-036-01	CATCHER, PUSH	
16	4-036-510-01	PANEL, INDICATOR	
17	*4-374-987-01	GUIDE, LIGHT	
18	3-720-417-01	DAMPER, OIL	
19	4-397-047-01	HOLDER, DAMPER	
20	4-036-513-01	SPRING, LID	
21	X-4030-619-1	COVER ASSY, FRONT	22
22	4-843-806-00	STRIKE	

7-2. CABINET

□: BVTP4×12 7-685-661-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	*X-4030-638-1	CABINET ASSY (KPR-46EXR15)	52~54
	*X-4030-636-1	CABINET ASSY (KPR-53EXR15)	53,54
52	4-378-522-21	SCREW,TAPPING, HEXAGON HEAD(KPR-46EXR15)	
53	4-030-850-01	SOCKET, CASTER	
54	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
55	4-032-343-11	CASTER	

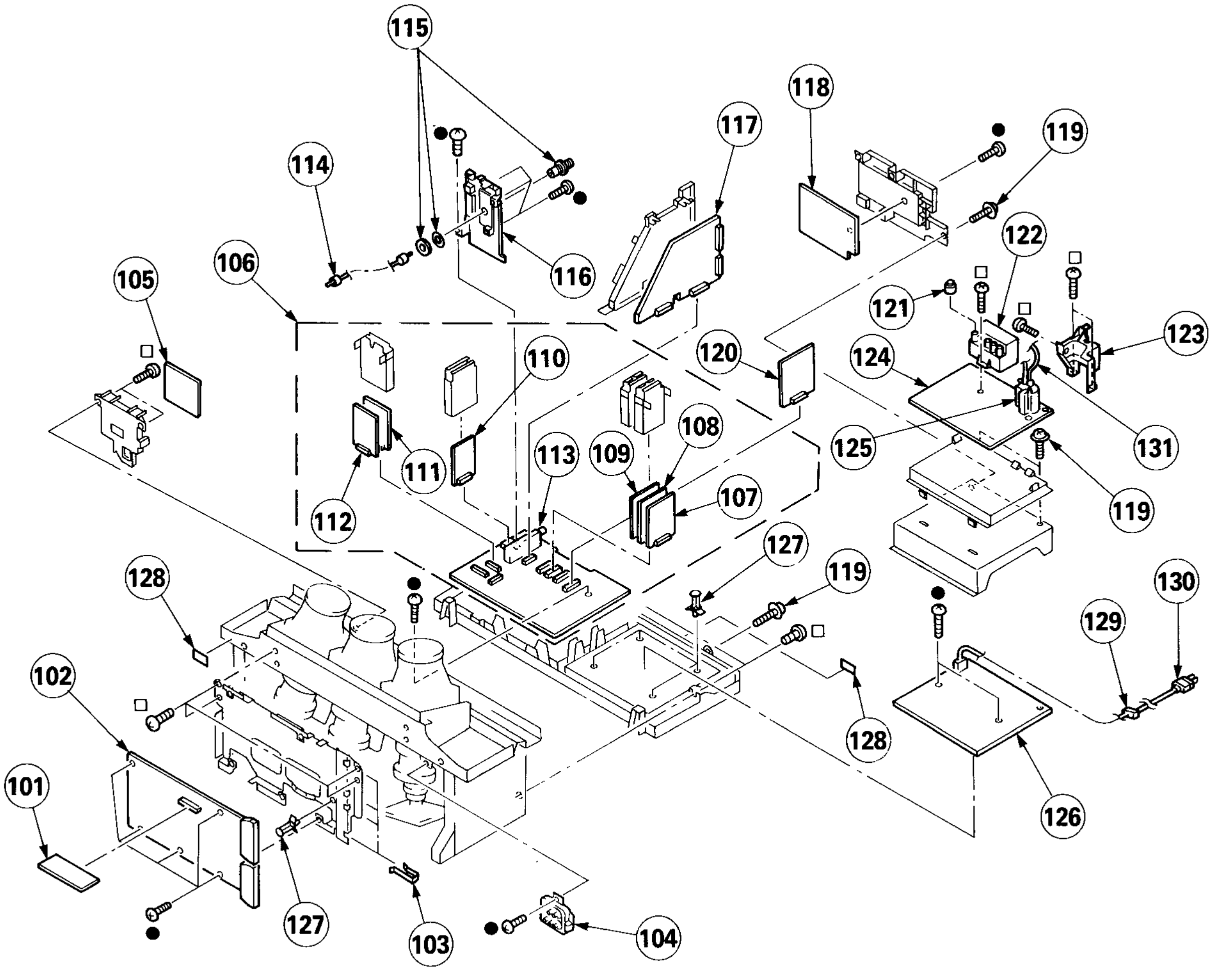
REF.NO.	PART NO.	DESCRIPTION	REMARK
56	X-4030-549-1	COVER ASSY, BACK	
57	4-036-462-01	COVER (46"), MIRROR (KPR-46EXR15)	
	4-036-474-01	COVER (53"), MIRROR (KPR-53EXR15)	
58	4-037-534-01	MIRROR (46), REFLECTION (KPR-46EXR15)	
	4-037-349-01	MIRROR (53), REFLECTION (KPR-53EXR15)	

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-3. CHASSIS

●: BVTP3×12 7-685-648-79
□: BVTP4×12 7-685-661-79



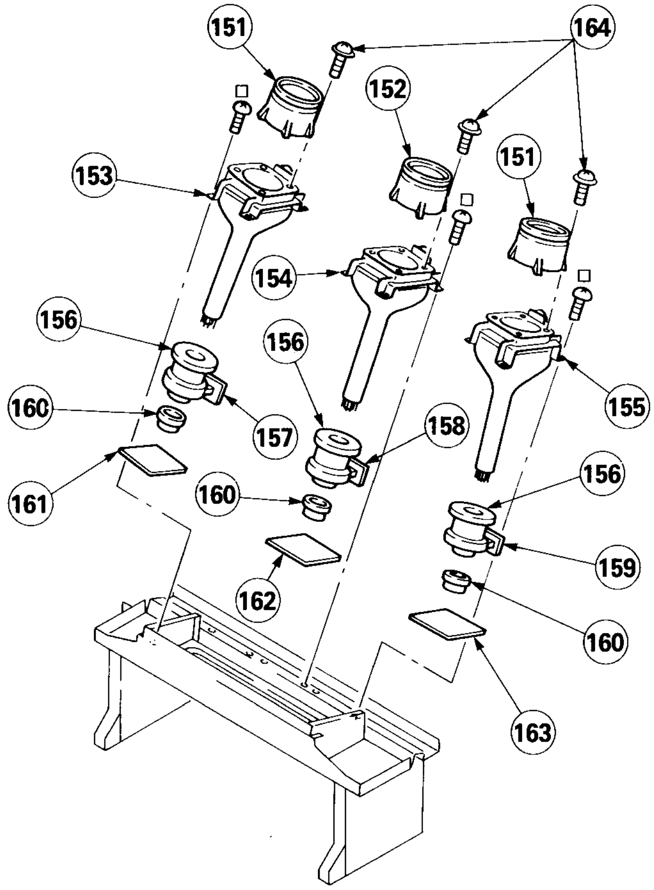
REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*1-644-278-12	DS BOARD	
102	*A-1341-540-A	D BOARD, COMPLETE	
103	*4-393-401-01	SPRING	
104	⚠1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)	
105	*1-643-669-11	S BOARD	
106	*A-1296-947-A	A BOARD, COMPLETE (KPR-46EXR15)	107~112
	*A-1297-026-A	A BOARD, COMPLETE (KPR-53EXR15)	107~112
107	*A-1346-093-A	E1 BOARD, COMPLETE	
108	*A-1346-052-A	E2 BOARD, COMPLETE	
109	*A-1306-415-A	M BOARD, COMPLETE	
110	*A-1195-051-A	P1 BOARD, COMPLETE	
111	*A-1394-363-A	X2 BOARD, COMPLETE	
112	*A-1394-362-A	Y2 BOARD, COMPLETE	
113	⚠1-693-102-11	TUNER (BTF-XA401)	
114	*1-555-110-00	CABLE, PIN	
115	1-561-306-00	JACK, PIN (F)	
116	4-036-137-01	PANEL, SUB CONNECTOR	
117	*A-1394-400-A	U BOARD, COMPLETE	
118	*A-1394-401-A	UT BOARD, COMPLETE	
119	3-701-810-91	SCREW, TERMINAL	
120	*A-1342-177-A	V BOARD, COMPLETE	
121	4-373-137-01	CAP (Z), RUBBER	
122	⚠1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
123	4-034-482-01	COVER, FBT	
124	*A-1390-296-A	N BOARD, COMPLETE	
125	⚠1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-2630B4)	
126	*A-1316-134-A	G BOARD, COMPLETE	
127	*3-670-570-21	SPACER, SUPPORT	
128	*3-703-044-26	LABEL, CAUTION	
129	⚠4-388-328-11	GROMMET, AC CORD	
130	⚠1-696-002-12	CORD, POWER (WITH NOISE FILTER)	
131	1-574-590-31	LEAD ASSY, HIGH-VOLTAGE	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

7-4. PICTURE TUBE

□: BVTP4×12 7-685-661-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
151	4-034-057-01	LENS (LINNIT)		158	*A-1390-298-A	ZG BOARD, COMPLETE	
152	4-034-057-11	LENS (LINNIT)		159	*A-1390-299-A	ZB BOARD, COMPLETE	
153	⚠.8-736-633-05	PICTURE TUBE (SD-249 (R))		160	⚠.1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
154	⚠.8-736-631-05	PICTURE TUBE (SD-249 (G))		161	*A-1331-206-A	CR BOARD, COMPLETE	
155	⚠.8-736-632-05	PICTURE TUBE (SD-249 (B))		162	*A-1331-207-A	CG BOARD, COMPLETE	
156	⚠.1-451-396-21	DEFLECTION YOKE (Y936PA)		163	*A-1331-208-A	CB BOARD, COMPLETE	
157	*A-1390-297-A	ZR BOARD, COMPLETE		164	3-701-810-91	SCREW, TERMINAL	

SECTION 8
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS	COILS
• MF : μF, PF : μμF	• MMH : mH, UH : μH

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1296-947-A	A BOARD, COMPLETE (KPR-46EXR15) ******************			
	*A-1297-026-A	A BOARD, COMPLETE (KPR-53EXR15) ******************			
	*4-341-751-01	EYELET (EY6,EY7,EY15~EY18,EY19(KPR-46EXR15),EY20(KPR-46EXR15),EY29(KPR-46EXR15),EY30(KPR-46EXR15),EY46~EY55,EY60~EY64)			
	*4-341-752-01	EYELET (EY1~EY5,EY10~EY14,EY22~EY28,EY31~EY45,EY67,EY68)			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CONNECTOR>			
A1	*1-564-514-11	PLUG, CONNECTOR 11P			
A2	*1-564-512-11	PLUG, CONNECTOR 9P			
A3	*1-564-507-11	PLUG, CONNECTOR 4P			
A4	*1-564-508-11	PLUG, CONNECTOR 5P			
A5	*1-564-511-11	PLUG, CONNECTOR 8P			
A8	*1-564-506-11	PLUG, CONNECTOR 3P			
A10	*1-564-511-11	PLUG, CONNECTOR 8P			
A11	*1-564-511-11	PLUG, CONNECTOR 8P			
A12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			
A13	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			
A14	*1-564-513-11	PLUG, CONNECTOR 10P			
A15	*1-564-508-11	PLUG, CONNECTOR 5P			
A16	*1-564-508-11	PLUG, CONNECTOR 5P			
A17	*1-564-508-11	PLUG, CONNECTOR 5P			
A18	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
A19	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
A20	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
A21	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
A22	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			
A25	*1-564-506-11	PLUG, CONNECTOR 3P			
A27	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P			
		<CAPACITOR>			
C201	1-124-910-11	ELECT	47MF	20%	50V
C202	1-124-903-11	ELECT	1MF	20%	50V
C203	1-130-495-00	MYLAR	0.1MF	5%	50V
C204	1-124-477-11	ELECT	47MF	20%	16V
C205	1-124-557-11	ELECT	1000MF	20%	25V
C206	1-126-101-11	ELECT	100MF	20%	16V
C207	1-124-242-00	ELECT	33MF	20%	16V
C210	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C212	1-126-803-11	ELECT	47MF	20%	16V
C213	1-126-103-11	ELECT	470MF	20%	16V
C214	1-126-101-11	ELECT	100MF	20%	16V
C215	1-126-803-11	ELECT	47MF	20%	50V
C216	1-126-101-11	ELECT	100MF	20%	16V
C217	1-126-803-11	ELECT	47MF	20%	25V
C218	1-126-103-11	ELECT	470MF	20%	16V
C219	1-124-443-00	ELECT	100MF	20%	10V
C220	1-126-803-11	ELECT	47MF	20%	25V
C223	1-126-803-11	ELECT	47MF	20%	25V
C224	1-124-261-00	ELECT	10MF	20%	50V
C225	1-124-120-11	ELECT	220MF	20%	16V
C226	1-124-120-11	ELECT	220MF	20%	16V
C227	1-124-471-00	ELECT	1000MF	20%	6.3V
C299	1-126-101-11	ELECT	100MF	20%	16V
C502	1-126-182-11	ELECT	0.47MF	20%	50V
C503	1-130-487-00	MYLAR	0.022MF	5%	50V
C504	1-136-153-00	FILM	0.01MF	5%	50V
C507	1-106-383-00	MYLAR	0.047MF		200V
C508	1-102-973-00	CERAMIC	100PF	5%	50V
C509	1-102-030-00	CERAMIC	330PF	10%	500V
C510 ⚠	1-136-565-11	FILM	0.015MF	3%	1.4KV
C512 ⚠	1-136-598-11	FILM	3MF	5%	200V
C513	1-136-153-00	FILM	0.01MF	5%	50V
C514	1-124-477-11	ELECT	47MF	20%	16V
C522	1-123-024-21	ELECT	33MF		160V
C523	1-106-383-00	MYLAR	0.047MF		200V
C528	1-124-662-11	ELECT	220MF	20%	50V
C536	1-124-662-11	ELECT	220MF	20%	50V
C537	1-124-662-11	ELECT	220MF	20%	50V
C539	1-124-907-11	ELECT	10MF	20%	50V
C542	1-136-153-00	FILM	0.01MF	5%	50V
C543	1-136-153-00	FILM	0.01MF	5%	50V
C544	1-136-153-00	FILM	0.01MF	5%	50V
C545	1-136-153-00	FILM	0.01MF	5%	50V
C569	1-126-355-11	ELECT	33MF	20%	160V
C1401	1-124-910-11	ELECT	47MF	20%	50V
C1402	1-126-157-11	ELECT	10MF	20%	16V
C1403	1-126-157-11	ELECT	10MF	20%	16V
C1404	1-126-157-11	ELECT	10MF	20%	16V
C1405	1-124-910-11	ELECT	47MF	20%	50V
C1406	1-126-101-11	ELECT	100MF	20%	16V
C1407	1-126-057-11	ELECT	2200MF	20%	50V
C1408	1-136-165-00	FILM	0.1MF	5%	50V
C1409	1-136-165-00	FILM	0.1MF	5%	50V
C1413	1-124-234-00	ELECT	22MF	20%	16V
C1424	1-126-057-11	ELECT	2200MF	20%	50V
C1425	1-126-057-11	ELECT	2200MF	20%	50V
C1426	1-126-157-11	ELECT	10MF	20%	16V
C1429	1-126-101-11	ELECT	100MF	20%	16V
C1430	1-126-101-11	ELECT	100MF	20%	16V
C1431	1-126-233-11	ELECT	22MF	20%	50V
C1435	1-126-233-11	ELECT	22MF	20%	25V
C1440	1-126-336-11	ELECT	220MF	20%	25V
C1601	1-130-483-00	MYLAR	0.01MF	5%	50V
C1603	1-136-153-00	FILM	0.01MF	5%	50V
C1607	1-124-907-11	ELECT	10MF	20%	50V

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REF.NO.	PART NO.	DESCRIPTION	REMARK
C1608	1-136-153-00	FILM 0.01MF 5% 50V	
C1609	1-136-153-00	FILM 0.01MF 5% 50V	
C1610	1-126-233-11	ELECT 22MF 20% 50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D203	8-719-911-19	DIODE 1SS119	
D204	8-719-911-19	DIODE 1SS119	
D205	8-719-110-36	DIODE RD13ES-B2	
D206	8-719-911-19	DIODE 1SS119	
D207	8-719-911-19	DIODE 1SS119	
D208	8-719-911-19	DIODE 1SS119	
D209	8-719-911-19	DIODE 1SS119	
D211	8-719-110-36	DIODE RD13ES-B2	
D213	8-719-110-78	DIODE RD33ES-B2	
D214	8-719-911-19	DIODE 1SS119	
D215	8-719-911-19	DIODE 1SS119	
D216	8-719-911-19	DIODE 1SS119	
D217	8-719-911-19	DIODE 1SS119	
D218	8-719-911-19	DIODE 1SS119	
D219	8-719-911-19	DIODE 1SS119	
D220	8-719-510-48	DIODE D1N20R	
D221	8-719-911-19	DIODE 1SS119	
D222	8-719-911-19	DIODE 1SS119	
D223	8-719-911-19	DIODE 1SS119	
D501	8-719-971-20	DIODE ERC38-06	
D502	8-719-971-20	DIODE ERC38-06	
D503	8-719-300-80	DIODE RU-1C	
D504	8-719-109-88	DIODE RD5.6ES-B1	
D505	8-719-900-95	DIODE V09G (KPR-46EXR15)	
D506	8-719-900-95	DIODE V09G (KPR-46EXR15)	
D507	8-719-970-89	DIODE DD50R	
D509	8-719-911-19	DIODE 1SS119	
D510	8-719-109-71	DIODE RD3.9ES-B1	
D511	8-719-911-19	DIODE 1SS119	
D512	8-719-911-19	DIODE 1SS119	
D513	8-719-911-19	DIODE 1SS119	
D514	8-719-911-19	DIODE 1SS119	
D515	8-719-911-19	DIODE 1SS119	
D1401	8-719-911-19	DIODE 1SS119	
D1402	8-719-911-19	DIODE 1SS119	
D1403	8-719-911-19	DIODE 1SS119	
D1404	8-719-110-88	DIODE RD39ES-B2	
D1405	8-719-110-88	DIODE RD39ES-B2	
D1406	8-719-911-19	DIODE 1SS119	
D1407	8-719-110-88	DIODE RD39ES-B2	
D1408	8-719-911-19	DIODE 1SS119	
D1409	8-719-110-88	DIODE RD39ES-B2	
D1410	8-719-911-19	DIODE 1SS119	
D1607	8-719-911-19	DIODE 1SS119	
D1608	8-719-911-19	DIODE 1SS119	
D1610	8-719-911-19	DIODE 1SS119	
D1611	8-719-911-19	DIODE 1SS119	
D1612	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC201	8-749-920-58	IC SI-3090CA	
IC204	8-759-231-53	IC TA7805S	
IC205	8-759-112-06	IC UPC78N05H	
IC206	8-759-982-13	IC RC7812FA	
IC207	8-749-920-58	IC SI-3090CA	
IC506	8-752-057-18	IC CXA1315P	
IC1401	8-759-246-70	IC TA8216H	
IC1601	8-752-058-71	IC CXA1656S	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L201	1-408-429-00	INDUCTOR 470UH	
L205	1-410-645-31	INDUCTOR 100UH	
L206	1-408-416-00	INDUCTOR 39UH	
L212	1-410-312-11	INDUCTOR 0.22UH	
L501 ⚠	1-460-196-11	COIL, HORIZONTAL LINEARITY	
L502	1-459-313-00	COIL WITH CORE (HWC)	
L515	1-410-645-31	INDUCTOR 100UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q502	8-729-014-88	TRANSISTOR 2SC4891-CA	
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-201-32	TRANSISTOR 2SA1013-O	
Q506	8-729-201-32	TRANSISTOR 2SA1013-O	
Q507	8-729-304-92	TRANSISTOR 2SB649A-C	
Q508	8-729-204-16	TRANSISTOR 2SA1301-O	
Q509	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1402	8-729-900-63	TRANSISTOR DTA124ES	
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1603	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1604	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1619	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1620	8-729-119-78	TRANSISTOR 2SC2785-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R203	1-249-425-11	CARBON 4.7K 5% 1/4W	
R204	1-249-441-11	CARBON 100K 5% 1/4W	
R209	1-249-409-11	CARBON 220 5% 1/4W	
R214	1-249-429-11	CARBON 10K 5% 1/4W	
R215	1-249-437-11	CARBON 47K 5% 1/4W	
R216	1-249-377-11	CARBON 0.47 5% 1/4W	F
R219	1-249-426-11	CARBON 5.6K 5% 1/4W	
R221	1-249-409-11	CARBON 220 5% 1/4W	
R222	1-249-436-11	CARBON 39K 5% 1/4W	
R223	1-249-434-11	CARBON 27K 5% 1/4W	
R224	1-249-409-11	CARBON 220 5% 1/4W	
R225	1-249-417-11	CARBON 1K 5% 1/4W	
R229	1-216-488-11	METAL OXIDE 18K 5% 3W	F
R231	1-249-409-11	CARBON 220 5% 1/4W	F
R232	1-215-906-11	METAL OXIDE 15 5% 3W	F
R233	1-249-409-11	CARBON 220 5% 1/4W	
R234	1-249-409-11	CARBON 220 5% 1/4W	
R235	1-249-409-11	CARBON 220 5% 1/4W	
R236	1-249-409-11	CARBON 220 5% 1/4W	
R237	1-249-409-11	CARBON 220 5% 1/4W	

A **P1**

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R238	1-249-409-11	CARBON	220	5%	1/4W	
R239	1-249-409-11	CARBON	220	5%	1/4W	
R240	1-215-906-11	METAL OXIDE	15	5%	3W	F
R241	1-249-401-11	CARBON	47	5%	1/4W	
R242	1-215-906-11	METAL OXIDE	15	5%	3W	F
R243	1-217-294-00	WIREWOUND	4.7	10%	5W	F
R244	1-207-676-00	WIREWOUND	6.8	10%	5W	F
R296	1-249-417-11	CARBON	1K	5%	1/4W	
R501	1-247-895-00	CARBON	470K	5%	1/4W	
R502	1-249-377-11	CARBON	0.47	5%	1/4W	F
R503	1-249-377-11	CARBON	0.47	5%	1/4W	F
R504	1-249-417-11	CARBON	1K	5%	1/4W	
R505	1-249-423-11	CARBON	3.3K	5%	1/4W	
R506	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R507	1-249-429-11	CARBON	10K	5%	1/4W	F
R508	1-216-373-11	METAL OXIDE	2.2	5%	2W	F
R509	1-216-478-11	METAL OXIDE	390	5%	3W	F
R511	1-249-407-11	CARBON	150	5%	1/4W	
R512	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R513	1-249-417-11	CARBON	1K	5%	1/4W	
R514	1-216-441-00	METAL OXIDE	27K	5%	1W	F
R515	1-249-432-11	CARBON	18K	5%	1/4W	F
R516	1-249-417-11	CARBON	1K	5%	1/4W	
R517	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R518	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R519	1-249-417-11	CARBON	1K	5%	1/4W	F
R520	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R521	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R522	1-249-421-11	CARBON	2.2K	5%	1/4W	
R523	1-249-434-11	CARBON	27K	5%	1/4W	
R524	1-249-434-11	CARBON	27K	5%	1/4W	
R525	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R526	1-249-417-11	CARBON	1K	5%	1/4W	
R528	1-216-447-00	METAL OXIDE	27	5%	2W	F
R529	1-216-447-00	METAL OXIDE	27	5%	2W	F
R530	1-249-431-11	CARBON	15K	5%	1/4W	
R531	1-249-431-11	CARBON	15K	5%	1/4W	
R532	1-249-385-11	CARBON	2.2	5%	1/4W	F
R533	1-249-405-11	CARBON	100	5%	1/4W	
R534	1-249-405-11	CARBON	100	5%	1/4W	
R535	1-249-405-11	CARBON	100	5%	1/4W	
R536	1-217-316-00	WIREWOUND	330	10%	5W	F (KPR-46EXR15)
R537	1-217-316-00	WIREWOUND	330	10%	5W	F (KPR-46EXR15)
R550	1-249-385-11	CARBON	2.2	5%	1/4W	F
R558	1-249-385-11	CARBON	2.2	5%	1/4W	F
R559	1-249-409-11	CARBON	220	5%	1/4W	
R560	1-249-409-11	CARBON	220	5%	1/4W	
R563	1-249-429-11	CARBON	10K	5%	1/4W	
R564	1-249-429-11	CARBON	10K	5%	1/4W	
R565	1-249-427-11	CARBON	6.8K	5%	1/4W	
R566	1-249-427-11	CARBON	6.8K	5%	1/4W	
R567	1-249-427-11	CARBON	6.8K	5%	1/4W	
R568	1-249-427-11	CARBON	6.8K	5%	1/4W	
R569	1-249-426-11	CARBON	5.6K	5%	1/4W	
R570	1-249-441-11	CARBON	100K	5%	1/4W	
R571	1-249-429-11	CARBON	10K	5%	1/4W	
R572	1-249-429-11	CARBON	10K	5%	1/4W	
R574	1-249-417-11	CARBON	1K	5%	1/4W	
R579	1-249-417-11	CARBON	1K	5%	1/4W	
R1401	1-215-445-00	METAL	10K	1%	1/4W	
R1402	1-215-445-00	METAL	10K	1%	1/4W	
R1403	1-215-445-00	METAL	10K	1%	1/4W	
R1404	1-215-445-00	METAL	10K	1%	1/4W	
R1405	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1406	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1409	1-249-433-11	CARBON	22K	5%	1/4W	
R1410	1-249-433-11	CARBON	22K	5%	1/4W	
R1411	1-249-437-11	CARBON	47K	5%	1/4W	
R1427	1-215-865-11	METAL OXIDE	220	5%	1W	F
R1428	1-215-865-11	METAL OXIDE	220	5%	1W	F
R1431	1-249-405-11	CARBON	100	5%	1/4W	
R1433	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1434	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1439	1-247-883-00	CARBON	150K	5%	1/4W	
R1440	1-249-417-11	CARBON	1K	5%	1/4W	
R1442	1-249-411-11	CARBON	330	5%	1/4W	
R1443	1-249-411-11	CARBON	330	5%	1/4W	
R1520	1-249-429-11	CARBON	10K	5%	1/4W	
R1601	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1602	1-249-417-11	CARBON	1K	5%	1/4W	
R1603	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1604	1-249-405-11	CARBON	100	5%	1/4W	
R1605	1-249-405-11	CARBON	100	5%	1/4W	
R1606	1-249-405-11	CARBON	100	5%	1/4W	
R1607	1-249-415-11	CARBON	680	5%	1/4W	
R1608	1-249-415-11	CARBON	680	5%	1/4W	
R1609	1-249-415-11	CARBON	680	5%	1/4W	
R1610	1-249-405-11	CARBON	100	5%	1/4W	
R1611	1-249-405-11	CARBON	100	5%	1/4W	
R1612	1-249-405-11	CARBON	100	5%	1/4W	
R1613	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1614	1-249-411-11	CARBON	330	5%	1/4W	
R1617	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1618	1-249-430-11	CARBON	12K	5%	1/4W	
R1622	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1624	1-249-417-11	CARBON	1K	5%	1/4W	
R1626	1-249-429-11	CARBON	10K	5%	1/4W	
R1627	1-249-429-11	CARBON	10K	5%	1/4W	
R1630	1-249-434-11	CARBON	27K	5%	1/4W	
R1631	1-249-417-11	CARBON	1K	5%	1/4W	
R1654	1-249-433-11	CARBON	22K	5%	1/4W	
R1656	1-249-397-11	CARBON	22	5%	1/4W	
R1657	1-249-397-11	CARBON	22	5%	1/4W	
R1658	1-249-397-11	CARBON	22	5%	1/4W	

<TRANSFORMER>

T501 ⚠	1-439-545-11	TRANSFORMER, FERRITE
T502 ⚠	1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE

<TUNER>

TU101 ⚠	1-693-102-11	TUNER (BTF-XA401)

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*A-1195-051-A P1 BOARD, COMPLETE
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<CAPACITOR>

C3001	1-124-589-11	ELECT	47MF	20%	16V
C3002	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3003	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3004	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3005	1-163-101-00	CERAMIC CHIP	22PF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3006	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3007	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C3008	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3009	1-124-257-00	ELECT	2.2MF	20%	50V
C3010	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C3011	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C3012	1-164-336-11	CERAMIC CHIP	0.33MF		25V
C3013	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C3014	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3015	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3016	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C3017	1-130-495-00	MYLAR	0.1MF	5%	50V
C3018	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C3019	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3020	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C3021	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C3022	1-126-301-11	ELECT	1MF	20%	50V
C3023	1-124-589-11	ELECT	47MF	20%	16V
C3024	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C3025	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C3026	1-126-163-11	ELECT	4.7MF	20%	50V
C3027	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C3028	1-124-589-11	ELECT	47MF	20%	16V
C3029	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3030	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C3031	1-124-589-11	ELECT	47MF	20%	16V
C3032	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3033	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3034	1-164-336-11	CERAMIC CHIP	0.33MF		25V
C3035	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3036	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3037	1-126-177-11	ELECT	100MF	20%	6.3V
C3038	1-136-287-11	FILM	0.0047MF	5%	50V
C3039	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3040	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3042	1-164-346-11	CERAMIC CHIP	1MF		16V
C3043	1-124-465-00	ELECT	0.47MF	20%	50V
C3044	1-126-301-11	ELECT	1MF	20%	50V
C3045	1-124-589-11	ELECT	47MF	20%	16V
C3046	1-126-301-11	ELECT	1MF	20%	50V
C3047	1-126-301-11	ELECT	1MF	20%	50V
C3048	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3051	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3052	1-126-177-11	ELECT	100MF	20%	6.3V
C3053	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3054	1-126-177-11	ELECT	100MF	20%	6.3V
C3055	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3057	1-124-589-11	ELECT	47MF	20%	16V
C3058	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C3059	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C3060	1-124-589-11	ELECT	47MF	20%	16V
C3061	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C3064	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C3065	1-124-589-11	ELECT	47MF	20%	16V
C3066	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3067	1-124-589-11	ELECT	47MF	20%	16V
C3069	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3070	1-126-177-11	ELECT	100MF	20%	6.3V
C3071	1-124-589-11	ELECT	47MF	20%	16V
C3072	1-124-589-11	ELECT	47MF	20%	16V
C3073	1-124-589-11	ELECT	47MF	20%	16V

<DIODE>

D3003	8-719-158-15	DIODE RD5.6S-B
D3009	8-719-404-46	DIODE MA110

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FL3001	1-412-911-11	INDUCTOR, FERRITE BEAD	
FL3002	1-412-911-11	INDUCTOR, FERRITE BEAD	

<IC>

IC3001	8-759-046-25	IC TDA3769
IC3002	8-759-009-46	IC MC14528BF
IC3003	8-759-513-48	IC TDA2595/V9
IC3004	8-759-055-51	IC SDA9087XGEG
IC3005	8-759-055-52	IC SDA9089XGEG
IC3006	8-759-112-06	IC UPC78N05H
IC3007	8-759-046-27	IC SDA9086-3
IC3008	8-759-112-06	IC UPC78N05H

<COIL>

L3001	1-410-476-11	INDUCTOR	33UH
L3002	1-408-424-00	INDUCTOR	180UH
L3003	1-408-424-00	INDUCTOR	180UH
L3004	1-410-470-11	INDUCTOR	10UH
L3005	1-410-472-41	INDUCTOR	15UH
L3006	1-410-470-11	INDUCTOR	10UH
L3007	1-410-472-41	INDUCTOR	15UH
L3008	1-410-472-41	INDUCTOR	15UH
L3009	1-410-472-41	INDUCTOR	15UH
L3010	1-410-466-41	INDUCTOR	4.7UH
L3011	1-410-470-11	INDUCTOR	10UH
L3012	1-410-676-31	INDUCTOR	150UH
L3013	1-412-911-11	INDUCTOR, FERRITE BEAD	

<CONNECTOR>

P1-001*	1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P

<TRANSISTOR>

Q3001	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3003	8-729-216-22	TRANSISTOR 2SA1162-G
Q3004	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3006	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3007	8-729-216-22	TRANSISTOR 2SA1162-G
Q3008	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3009	8-729-216-22	TRANSISTOR 2SA1162-G
Q3010	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3011	8-729-216-22	TRANSISTOR 2SA1162-G
Q3012	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3013	8-729-920-74	TRANSISTOR 2SC2412K-QR

<RESISTOR>

R3001	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R3002	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R3003	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R3004	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R3005	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R3006	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3007	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R3008	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3009	1-216-041-00	METAL GLAZE	470	5%	1/10W
R3010	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3011	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3012	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R3013	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W

P1 **M**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3014	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3015	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3018	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3019	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3020	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R3021	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R3023	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3024	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3025	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3026	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3027	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3028	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R3030	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3031	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R3032	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3033	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3034	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3035	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R3036	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3037	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3038	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3040	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3043	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R3044	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3045	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3046	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3047	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3048	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3049	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3050	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3051	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3052	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3053	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3054	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R3055	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3056	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3057	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3058	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3059	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3060	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3061	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3062	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3063	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3064	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3065	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3066	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3067	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3069	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3071	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3073	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3075	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3076	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3077	1-216-637-11	METAL CHIP	270	0.50%	1/10W	
R3078	1-216-644-11	METAL CHIP	510	0.50%	1/10W	
R3079	1-216-640-11	METAL CHIP	360	0.50%	1/10W	
R3081	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
R3082	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R3084	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3085	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R3086	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3087	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3088	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3089	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3090	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3091	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3092	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3098	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R3099	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R3100	1-216-296-00	METAL GLAZE	0	5%	1/8W	

<VARIABLE RESISTOR>

RV3001	1-241-630-11	RES, ADJ, CARBON 10K
RV3002	1-241-632-11	RES, ADJ, CARBON 47K

<CRYSTAL>

X3001	1-567-505-11	OSCILLATOR, CRYSTAL

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*A-1306-415-A M BOARD, COMPLETE
****

<CAPACITOR>

C001	1-124-261-00	ELECT	10MF	20%	50V
C002	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C003	1-136-161-00	FILM	0.047MF	5%	50V
C004	1-126-301-11	ELECT	1MF	20%	50V
C005	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C014	1-124-910-11	ELECT	47MF	20%	50V
C015	1-124-464-11	ELECT	0.22MF	20%	50V
C017	1-124-589-11	ELECT	47MF	20%	16V
C018	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C019	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C020	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C021	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C029	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C030	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C034	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C035	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C036	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C041	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C042	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C045	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C047	1-124-261-00	ELECT	10MF	20%	50V
C048	1-124-261-00	ELECT	10MF	20%	50V
C049	1-124-261-00	ELECT	10MF	20%	50V
C055	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C064	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C065	1-124-257-00	ELECT	2.2MF	20%	50V

<DIODE>

D001	8-719-404-46	DIODE MA110
D002	8-719-404-46	DIODE MA110
D003	8-719-404-46	DIODE MA110
D004	8-719-404-46	DIODE MA110
D005	8-719-404-46	DIODE MA110
D006	8-719-404-46	DIODE MA110
D007	8-719-404-46	DIODE MA110
D008	8-719-404-46	DIODE MA110
D009	8-719-404-46	DIODE MA110
D010	8-713-300-57	DIODE 1T33
D011	8-719-404-46	DIODE MA110
D012	8-719-404-46	DIODE MA110

M

REF.NO.	PART NO.	DESCRIPTION	REMARK
D015	8-719-404-46	DIODE MA110	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC001	8-759-095-47	IC TMC73C247-08	
IC002	8-759-403-44	IC MN1280-S	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L001	1-408-409-00	INDUCTOR 10UH	
L002	1-410-476-11	INDUCTOR 33UH	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
M001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P	
M39	*1-564-521-11	PLUG, CONNECTOR 6P	
M45	*1-564-523-11	PLUG, CONNECTOR 8P	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q001	8-729-216-22	TRANSISTOR 2SA1162-G	
Q002	8-729-216-22	TRANSISTOR 2SA1162-G	
Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q004	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q005	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q006	8-729-216-22	TRANSISTOR 2SA1162-G	
Q007	8-729-216-22	TRANSISTOR 2SA1162-G	
Q008	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q009	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q010	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q011	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q012	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q013	8-729-216-22	TRANSISTOR 2SA1162-G	
Q014	8-729-920-74	TRANSISTOR 2SC2412K-QR	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R001	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R002	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R003	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R004	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R005	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R006	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R007	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R008	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R009	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R011	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R012	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R013	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R014	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R015	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R016	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R017	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R018	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R019	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R020	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R021	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R022	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R023	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R024	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R025	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R026	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R027	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R028	1-216-023-00	METAL GLAZE 82 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R029	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R030	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R031	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R032	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R033	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R034	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R035	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R036	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R037	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R038	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R039	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R040	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R041	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R042	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R043	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R044	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R045	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R046	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R047	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R048	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R049	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R050	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R051	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R052	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R053	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R054	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R055	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R056	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R057	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R058	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R059	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R060	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R063	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R064	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R065	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R066	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R067	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R068	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R069	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R070	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R071	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R072	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R073	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R074	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R075	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R076	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R077	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R078	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R079	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R080	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R081	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R082	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R083	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R084	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R085	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R086	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R087	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R088	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R089	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R090	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R091	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R093	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R094	1-216-033-00	METAL GLAZE 220 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R095	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R096	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R097	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R098	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R099	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R100	1-216-025-00	METAL GLAZE	100	5%	1/10W
R101	1-216-025-00	METAL GLAZE	100	5%	1/10W
R102	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R103	1-216-033-00	METAL GLAZE	220	5%	1/10W
R104	1-216-033-00	METAL GLAZE	220	5%	1/10W

<CRYSTAL>

X001	1-579-743-11	VIBRATOR, CRYSTAL

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*A-1346-093-A E1 BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C301	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V
C303	1-126-157-11	ELECT	10MF	20%	16V
C304	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C305	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C306	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C309	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C310	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C314	1-124-915-11	ELECT	10MF	20%	16V
C315	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C319	1-126-157-11	ELECT	10MF	20%	16V
C320	1-124-465-00	ELECT	0.47MF	20%	50V
C321	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C322	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C323	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C324	1-124-234-00	ELECT	22MF	20%	16V
C325	1-137-502-11	FILM CHIP	0.1MF	5%	25V
C326	1-137-502-11	FILM CHIP	0.1MF	5%	25V
C327	1-137-502-11	FILM CHIP	0.1MF	5%	25V
C328	1-126-157-11	ELECT	10MF	20%	16V
C329	1-126-157-11	ELECT	10MF	20%	16V
C330	1-126-157-11	ELECT	10MF	20%	16V
C331	1-126-301-11	ELECT	1MF	20%	50V
C332	1-124-584-00	ELECT	100MF	20%	10V
C333	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C334	1-137-491-11	FILM CHIP	0.1MF	5%	25V
C335	1-136-169-00	FILM	0.22MF	5%	50V
C336	1-126-301-11	ELECT	1MF	20%	50V
C337	1-126-301-11	ELECT	1MF	20%	50V
C338	1-124-584-00	ELECT	100MF	20%	10V
C339	1-124-791-11	ELECT	1MF	20%	50V
C340	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C341	1-126-157-11	ELECT	10MF	20%	16V
C342	1-124-465-00	ELECT	0.47MF	20%	50V
C343	1-124-589-11	ELECT	47MF	20%	16V
C344	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C345	1-124-767-00	ELECT	2.2MF	20%	50V
C346	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C347	1-136-169-00	FILM	0.22MF	5%	50V
C348	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C349	1-126-301-11	ELECT	1MF	20%	50V
C350	1-126-301-11	ELECT	1MF	20%	50V
C351	1-163-002-11	CERAMIC CHIP	270PF	10%	50V
C352	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C353	1-126-163-11	ELECT	4.7MF	20%	50V
C354	1-136-169-00	FILM	0.22MF	5%	50V
C355	1-124-465-00	ELECT	0.47MF	20%	50V
C356	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C357	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C358	1-124-767-00	ELECT	2.2MF	20%	50V
C360	1-137-491-11	FILM CHIP	0.1MF	5%	25V
C361	1-126-301-11	ELECT	1MF	20%	50V
C362	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C363	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C364	1-126-301-11	ELECT	1MF	20%	50V
C365	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C366	1-124-257-00	ELECT	2.2MF	20%	50V
C367	1-126-157-11	ELECT	10MF	20%	16V
C368	1-124-234-00	ELECT	22MF	20%	16V
C369	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C370	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C371	1-124-126-00	ELECT	47MF	20%	16V
C372	1-124-589-11	ELECT	47MF	20%	16V
C373	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C378	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C379	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C380	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C381	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C382	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C383	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C384	1-163-095-00	CERAMIC CHIP	12PF	5%	50V

<DIODE>

D301	8-719-404-46	DIODE MA110
D302	8-719-404-46	DIODE MA110
D303	8-719-404-46	DIODE MA110
D304	8-719-404-46	DIODE MA110
D305	8-719-404-46	DIODE MA110
D306	8-719-158-15	DIODE RD5.6S-B
D307	8-719-404-46	DIODE MA110
D310	8-719-158-15	DIODE RD5.6S-B
D312	8-719-404-46	DIODE MA110
D313	8-719-404-46	DIODE MA110
D314	8-719-404-46	DIODE MA110
D315	8-719-404-46	DIODE MA110
D316	8-719-404-46	DIODE MA110
D317	8-719-404-46	DIODE MA110
D318	8-719-404-46	DIODE MA110
D319	8-719-404-46	DIODE MA110
D320	8-719-404-46	DIODE MA110
D321	8-719-400-94	DIODE MA3130

<DELAY LINE>

DL302	1-415-817-11	DELAY LINE

<CONNECTOR>

E1-001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P
E1-24	*1-564-523-11	PLUG, CONNECTOR 8P
E1-25	*1-564-521-11	PLUG, CONNECTOR 6P
E1-26	*1-564-522-11	PLUG, CONNECTOR 7P

<IC>

IC301	8-752-058-68	IC CXA1315M
IC302	8-752-057-68	IC CXA1464AS

E1

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC303	8-759-106-02	IC UPC4570G2	
		<COIL>	
L301	1-410-064-11	INDUCTOR 2.7MMH	
L307	1-410-944-31	INDUCTOR CHIP 15UH	
L308	1-410-946-31	INDUCTOR CHIP 22UH	
		<TRANSISTOR>	
Q301	8-729-925-79	TRANSISTOR IMX3	
Q302	8-729-925-79	TRANSISTOR IMX3	
Q303	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q304	8-729-907-46	TRANSISTOR IMZ1	
Q305	8-729-925-79	TRANSISTOR IMX3	
Q306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q307	8-729-903-10	TRANSISTOR FMW1	
Q309	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q310	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q311	8-729-403-27	TRANSISTOR XN4401	
Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q314	8-729-403-27	TRANSISTOR XN4401	
Q315	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q316	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q317	8-729-216-22	TRANSISTOR 2SA1162-G	
Q321	8-729-925-79	TRANSISTOR IMX3	
Q322	8-729-216-22	TRANSISTOR 2SA1162-G	
Q323	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q324	8-729-216-22	TRANSISTOR 2SA1162-G	
Q325	8-729-216-22	TRANSISTOR 2SA1162-G	
Q326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q328	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q329	8-729-925-79	TRANSISTOR IMX3	
Q330	8-729-925-79	TRANSISTOR IMX3	
Q333	8-729-925-79	TRANSISTOR IMX3	
Q334	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q335	8-729-907-46	TRANSISTOR IMZ1	
Q340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q342	8-729-925-79	TRANSISTOR IMX3	
Q344	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	
R301	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R302	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R303	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R304	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R305	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R306	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R307	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R308	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R309	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R310	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R312	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R313	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R314	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R316	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R317	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R320	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R325	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R326	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R331	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R332	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R333	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R336	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R338	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R339	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R340	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R341	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R343	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R344	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R345	1-216-292-11	METAL GLAZE 8.2M 5% 1/8W	
R346	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R347	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R348	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R349	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R350	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R351	1-216-674-11	METAL CHIP 9.1K 0.50% 1/10W	
R352	1-216-011-00	METAL GLAZE 27 5% 1/10W	
R353	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R354	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R355	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R356	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R357	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R358	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R359	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R360	1-216-119-00	METAL GLAZE 820K 5% 1/10W	
R361	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R362	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R363	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R364	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R365	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R366	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R367	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R368	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R369	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R370	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R371	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R372	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R373	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R374	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R375	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R376	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R377	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R378	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R379	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R380	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R381	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R382	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R383	1-216-653-11	METAL CHIP 1.2K 0.50% 1/10W	
R384	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R385	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R386	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	
R387	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R388	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R389	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R390	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R391	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R393	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R394	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R395	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R396	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R397	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R398	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R399	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R1301	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

E1 E2

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1302	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1303	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1304	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1305	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1306	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1307	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1308	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1309	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1310	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1311	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1312	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1314	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1315	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1316	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1317	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1318	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1319	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1320	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1321	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1322	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1323	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1324	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1326	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1327	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1328	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1329	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1330	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1331	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1332	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1333	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R1334	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1335	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1336	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1337	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1338	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1339	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1340	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1342	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1343	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1344	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1345	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1346	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1347	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1348	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1350	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1351	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1352	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1353	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1354	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1355	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1356	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1357	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1358	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1362	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1363	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1364	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1373	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1374	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1379	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1380	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1381	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1382	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1383	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1384	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1385	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1386	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1387	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1388	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1389	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1390	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1391	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1392	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1394	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1395	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1396	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R1399	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R5301	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R5302	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5303	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5304	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R5305	1-216-085-00	METAL GLAZE	33K	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X301	1-567-505-11	OSCILLATOR, CRYSTAL	

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*A-1346-052-A E2 BOARD, COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2302	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2303	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2310	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C2314	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2318	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2320	1-124-589-11	ELECT	47MF	20%	16V	
C2321	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C2322	1-124-234-00	ELECT	22MF	20%	16V	
C2323	1-124-234-00	ELECT	22MF	20%	16V	
C2324	1-124-234-00	ELECT	22MF	20%	16V	
C2325	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2326	1-124-589-11	ELECT	47MF	20%	16V	
C2327	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2328	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2329	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2331	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2332	1-124-234-00	ELECT	22MF	20%	16V	
C2333	1-124-234-00	ELECT	22MF	20%	16V	
C2334	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2335	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2336	1-126-163-11	ELECT	4.7MF	20%	16V	
C2337	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2338	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2340	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C2341	1-135-217-21	TANTAL. CHIP	15MF	20%	6.3V	
C2345	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2346	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2347	1-163-367-11	CERAMIC CHIP	39PF	5%	50V	
C2349	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2350	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2351	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C2352	1-164-505-11	CERAMIC CHIP	2.2MF		16V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C2353	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C2354	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C2357	1-126-301-11	ELECT 1MF 20% 50V	
C2360	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
		<DIODE>	
D2301	8-719-018-27	DIODE MA5091	
D2302	8-719-018-27	DIODE MA5091	
D2303	8-719-018-27	DIODE MA5091	
D2304	8-719-018-27	DIODE MA5091	
D2305	8-719-018-27	DIODE MA5091	
D2306	8-719-404-46	DIODE MA110	
D2307	8-719-946-98	DIODE FMN1	
D2308	8-719-946-98	DIODE FMN1	
D2309	8-719-404-46	DIODE MA110	
D2312	8-719-404-46	DIODE MA110	
D2313	8-719-404-46	DIODE MA110	
D2314	8-713-300-57	DIODE 1T33	
D2317	8-719-404-46	DIODE MA110	
		<CONNECTOR>	
E2-002	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P	
E2-25	*1-564-521-11	PLUG, CONNECTOR 6P	
E2-26	*1-564-522-11	PLUG, CONNECTOR 7P	
E2-46	*1-564-518-11	PLUG, CONNECTOR 3P	
		<IC>	
IC2301	8-759-066-52	IC PCA8510T/012-T	
IC2303	8-759-925-75	IC SN74HC05ANS	
IC2304	8-752-037-15	IC CXA1387S	
IC2306	8-759-011-65	IC MC74HC4053F	
IC2307	8-752-058-68	IC CXA1315M	
		<COIL>	
L2304	1-408-414-00	INDUCTOR 27UH	
		<TRANSISTOR>	
Q2301	8-729-903-10	TRANSISTOR FMW1	
Q2303	8-729-403-27	TRANSISTOR XN4401	
Q2304	8-729-925-79	TRANSISTOR IMX3	
Q2305	8-729-903-10	TRANSISTOR FMW1	
Q2306	8-729-403-27	TRANSISTOR XN4401	
Q2307	8-729-403-27	TRANSISTOR XN4401	
Q2308	8-729-403-27	TRANSISTOR XN4401	
Q2309	8-729-903-10	TRANSISTOR FMW1	
Q2310	8-729-403-27	TRANSISTOR XN4401	
Q2311	8-729-903-10	TRANSISTOR FMW1	
Q2312	8-729-403-27	TRANSISTOR XN4401	
Q2313	8-729-903-10	TRANSISTOR FMW1	
Q2314	8-729-403-27	TRANSISTOR XN4401	
Q2315	8-729-903-10	TRANSISTOR FMW1	
Q2317	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2318	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2319	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2320	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2321	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2322	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2324	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2328	8-729-925-79	TRANSISTOR IMX3	
Q2329	8-729-925-79	TRANSISTOR IMX3	
Q2330	8-729-903-10	TRANSISTOR FMW1	
Q2336	8-729-925-79	TRANSISTOR IMX3	
Q2337	8-729-925-79	TRANSISTOR IMX3	
Q2339	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2341	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<RESISTOR>	
R2302	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2303	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2304	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2305	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2306	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R2307	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R2308	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R2309	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2310	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R2311	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2312	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R2313	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R2314	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2315	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2317	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2318	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R2319	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R2320	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2321	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R2322	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2323	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R2324	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2325	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2326	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2327	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R2328	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2329	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2330	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2331	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R2332	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2333	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R2334	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2335	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2336	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2337	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2338	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2339	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2340	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2341	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2342	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2343	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2344	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2345	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2346	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2347	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R2348	1-216-655-11	METAL CHIP 1.5K 0.50% 1/10W	
R2349	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2350	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2351	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2352	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2353	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2354	1-216-178-00	METAL GLAZE 150 5% 1/8W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2355	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R2356	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R2357	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R2359	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2360	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2361	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2362	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2363	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2364	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2365	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2366	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2367	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2368	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2371	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2374	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2375	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2376	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2377	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2378	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2379	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2380	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2381	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2382	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2384	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2385	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2386	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2387	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2388	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2390	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2393	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2394	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2395	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R2397	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2399	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3302	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3303	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3304	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3306	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3307	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3308	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3309	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3310	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3311	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3312	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3313	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3314	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3315	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3316	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R3318	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R3319	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R3320	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R3321	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3323	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R3324	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3328	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3330	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3331	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3332	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3333	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R3334	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R3335	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3336	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R3337	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R3339	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3340	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3341	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R3342	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R3343	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3344	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3347	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R3348	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R3349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3350	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3351	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3352	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3353	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3354	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3356	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R3357	1-216-654-11	METAL CHIP	1.3K	0.50%	1/10W	
R3358	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R3359	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R3360	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3361	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3362	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3364	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3367	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3368	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3369	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3370	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3371	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3373	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R3374	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3375	1-216-658-11	METAL CHIP	2K	0.50%	1/10W	
R3376	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R3377	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R3378	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R3379	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R3380	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R3381	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3382	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3387	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R3388	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R3392	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3401	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R7312	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R7313	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R7314	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

<CRYSTAL>

X2301	1-577-071-11	VIBRATOR, CERAMIC

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*A-1394-362-A Y2 BOARD, COMPLETE
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<CAPACITOR>

C401	1-124-234-00	ELECT	22MF	20%	16V
C424	1-126-301-11	ELECT	1MF	20%	50V
C425	1-126-301-11	ELECT	1MF	20%	50V
C426	1-126-301-11	ELECT	1MF	20%	50V
C427	1-124-465-00	ELECT	0.47MF	20%	50V
C428	1-126-163-11	ELECT	4.7MF	20%	50V
C429	1-124-478-11	ELECT	100MF	20%	25V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C430	1-124-261-00	ELECT	10MF	20%	50V	
C431	1-126-301-11	ELECT	1MF	20%	50V	
C432	1-126-301-11	ELECT	1MF	20%	50V	
C433	1-131-347-00	TANTALUM	1MF	20%	16V	
C434	1-126-301-11	ELECT	1MF	20%	50V	
C435	1-130-309-00	FILM	0.033MF	5%	100V	
C436	1-126-301-11	ELECT	1MF	20%	50V	
C437	1-130-487-00	MYLAR	0.022MF	5%	50V	
C438	1-126-301-11	ELECT	1MF	20%	50V	
C439	1-124-034-51	ELECT	33MF	20%	16V	
C440	1-126-301-11	ELECT	1MF	20%	50V	
C441	1-126-301-11	ELECT	1MF	20%	50V	
C442	1-124-261-00	ELECT	10MF	20%	50V	
C443	1-124-589-11	ELECT	47MF	20%	16V	
C446	1-124-234-00	ELECT	22MF	20%	16V	
C447	1-126-301-11	ELECT	1MF	20%	50V	
C448	1-136-170-00	FILM	0.27MF	5%	50V	
C449	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C450	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C451	1-124-261-00	ELECT	10MF	20%	50V	
C452	1-124-261-00	ELECT	10MF	20%	50V	
C453	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C454	1-131-368-00	TANTALUM	3.3MF	10%	16V	
C455	1-131-347-00	TANTALUM	1MF	20%	16V	
C456	1-136-171-00	FILM	0.33MF	5%	50V	
C457	1-136-175-00	FILM	0.68MF	5%	50V	
C458	1-126-101-11	ELECT	100MF	20%	16V	
C459	1-126-101-11	ELECT	100MF	20%	16V	
C460	1-126-101-11	ELECT	100MF	20%	16V	
C461	1-124-499-11	ELECT	1MF	20%	50V	
C462	1-124-499-11	ELECT	1MF	20%	50V	
C465	1-130-485-00	MYLAR	0.015MF	5%	50V	
C466	1-130-485-00	MYLAR	0.015MF	5%	50V	
C467	1-136-169-00	FILM	0.22MF	5%	50V	
C468	1-136-169-00	FILM	0.22MF	5%	50V	
C469	1-126-157-11	ELECT	10MF	20%	16V	
C470	1-126-157-11	ELECT	10MF	20%	16V	
C471	1-124-589-11	ELECT	47MF	20%	16V	
C472	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C473	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C474	1-124-234-00	ELECT	22MF	20%	16V	
C475	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C476	1-124-234-00	ELECT	22MF	20%	16V	
C477	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C478	1-124-478-11	ELECT	100MF	20%	25V	
C479	1-126-163-11	ELECT	4.7MF	20%	50V	
C480	1-124-768-11	ELECT	4.7MF	20%	50V	
C481	1-124-768-11	ELECT	4.7MF	20%	50V	
C482	1-126-163-11	ELECT	4.7MF	20%	50V	
C483	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C484	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C485	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C487	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C488	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D405	8-719-107-13	DIODE RD18M-B1	
D406	8-719-107-13	DIODE RD18M-B1	
D407	8-719-107-13	DIODE RD18M-B1	
D408	8-719-105-83	DIODE RD5.1M-B3	
D409	8-719-981-50	DIODE RB-100A	
D410	8-719-981-50	DIODE RB-100A	
D413	8-719-158-19	DIODE RD6.2S-B	
D414	8-719-158-55	DIODE RD15S-B	
D415	8-719-158-55	DIODE RD15S-B	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC403	8-759-996-43	IC RC4558PS	
IC404	8-759-067-24	IC 24C04AI/P	
IC406	8-752-037-24	IC CXA1264AS	
IC407	8-759-245-75	IC TA8184P	
IC408	8-752-057-18	IC CXA1315P	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q409	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q410	8-729-920-74	TRANSISTOR 2SC2412K-QR	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R453	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R464	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R465	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R466	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R467	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R468	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R469	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R470	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R471	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R472	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R473	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R474	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R475	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R476	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R477	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R478	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R479	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R480	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R481	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R482	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R483	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R485	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R486	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R488	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R494	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R495	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R496	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R497	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R498	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R499	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R500	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R501	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R502	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R503	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R504	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R507	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R510	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R512	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R513	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R515	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R517	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R518	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R519	1-216-295-00	METAL GLAZE	0	5%	1/10W	

Y2 **X2**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R521	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R522	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R523	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R524	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R525	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R526	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R527	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R528	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R529	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R532	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R533	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R535	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R536	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R537	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R538	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R539	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R542	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R543	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R546	1-216-682-11	METAL CHIP	20K	0.50%	1/10W	
R547	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	

<CONNECTOR>

Y2-401*1-573-966-11 PIN, CONNECTUR (PC BOARD) 36P

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*A-1394-363-A X2 BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2501	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V	
C2502	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V	
C2503	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C2504	1-126-163-11	ELECT	4.7MF	20%	50V	
C2505	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V	
C2506	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V	
C2507	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C2508	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V	
C2509	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V	
C2510	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V	
C2511	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2512	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2513	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2516	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2517	1-126-157-11	ELECT	10MF	20%	16V	
C2518	1-126-163-11	ELECT	4.7MF	20%	50V	
C2519	1-126-301-11	ELECT	1MF	20%	50V	
C2520	1-126-163-11	ELECT	4.7MF	20%	50V	
C2521	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C2522	1-124-252-00	ELECT	0.33MF	20%	50V	
C2523	1-126-163-11	ELECT	4.7MF	20%	50V	
C2524	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2525	1-126-163-11	ELECT	4.7MF	20%	50V	
C2526	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2527	1-126-157-11	ELECT	10MF	20%	16V	
C2528	1-124-465-00	ELECT	0.47MF	20%	50V	
C2529	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V	
C2530	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C2531	1-126-301-11	ELECT	1MF	20%	50V	
C2532	1-126-301-11	ELECT	1MF	20%	50V	
C2533	1-124-261-00	ELECT	10MF	20%	50V	
C2534	1-163-257-11	CERAMIC CHIP	180PF	5%	50V	
C2535	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2536	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2537	1-126-163-11	ELECT	4.7MF	20%	50V	
C2538	1-126-163-11	ELECT	4.7MF	20%	50V	
C2539	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C2540	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2541	1-163-139-00	CERAMIC CHIP	820PF	5%	50V	
C2542	1-124-478-11	ELECT	100MF	20%	25V	
C2543	1-124-252-00	ELECT	0.33MF	20%	50V	
C2544	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C2545	1-126-301-11	ELECT	1MF	20%	50V	
C2546	1-126-163-11	ELECT	4.7MF	20%	50V	
C2547	1-126-163-11	ELECT	4.7MF	20%	25V	
C2548	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C2549	1-126-163-11	ELECT	4.7MF	20%	50V	
C2550	1-126-163-11	ELECT	4.7MF	20%	25V	
C2551	1-126-301-11	ELECT	1MF	20%	50V	
C2552	1-126-163-11	ELECT	4.7MF	20%	50V	
C2553	1-126-301-11	ELECT	1MF	20%	50V	
C2554	1-124-234-00	ELECT	22MF	20%	16V	
C2555	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2556	1-124-257-00	ELECT	2.2MF	20%	50V	
C2557	1-124-234-00	ELECT	22MF	20%	16V	
C2558	1-126-301-11	ELECT	1MF	20%	50V	
C2559	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2560	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C2561	1-126-301-11	ELECT	1MF	20%	50V	
C2562	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	
C2563	1-163-257-11	CERAMIC CHIP	180PF	5%	50V	
C2564	1-126-301-11	ELECT	1MF	20%	50V	
C2565	1-126-163-11	ELECT	4.7MF	20%	50V	
C2566	1-126-163-11	ELECT	4.7MF	20%	50V	
C2567	1-126-163-11	ELECT	4.7MF	20%	50V	
C2568	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	
C2569	1-163-257-11	CERAMIC CHIP	180PF	5%	50V	
C2570	1-124-234-00	ELECT	22MF	20%	16V	
C2571	1-126-301-11	ELECT	1MF	20%	50V	
C2572	1-126-163-11	ELECT	4.7MF	20%	50V	
C2573	1-124-234-00	ELECT	22MF	20%	16V	
C2574	1-126-301-11	ELECT	1MF	20%	50V	
C2575	1-126-301-11	ELECT	1MF	20%	50V	
C2576	1-126-301-11	ELECT	1MF	20%	50V	
C2577	1-126-163-11	ELECT	4.7MF	20%	50V	
C2578	1-126-163-11	ELECT	4.7MF	20%	50V	
C2579	1-126-103-11	ELECT	470MF	20%	16V	
C2580	1-124-478-11	ELECT	100MF	20%	25V	
C2581	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C2582	1-124-477-11	ELECT	47MF	20%	25V	
C2583	1-126-163-11	ELECT	4.7MF	20%	50V	
C2584	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C2585	1-126-163-11	ELECT	4.7MF	20%	50V	
C2586	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C2587	1-126-163-11	ELECT	4.7MF	20%	50V	
C2588	1-126-163-11	ELECT	4.7MF	20%	50V	
C2589	1-126-163-11	ELECT	4.7MF	20%	50V	
C2590	1-126-163-11	ELECT	4.7MF	20%	50V	
C2591	1-124-478-11	ELECT	100MF	20%	25V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2501	8-719-104-34	DIODE 1S2836	
D2502	8-719-106-88	DIODE RD15M-B1	
D2503	8-719-106-88	DIODE RD15M-B1	
D2504	8-719-106-88	DIODE RD15M-B1	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC2501	8-759-031-31	IC MC33174M	
IC2502	8-752-050-75	IC CXA1373Q	
IC2503	8-759-604-70	IC M51523AL	
IC2504	8-759-031-31	IC MC33174M	
IC2505	8-759-604-70	IC M51523AL	
IC2506	8-759-106-22	IC UPD4052BG	
IC2507	8-759-038-68	IC MC33172ML	
IC2508	8-759-038-68	IC MC33172ML	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J2501	*1-573-966-11	PIN, CONNECTOR (PC BOARD) 36P	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2501	8-729-230-49	TRANSISTOR 2SC2712-YG	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2501	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2502	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2503	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R2504	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R2505	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R2506	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R2507	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R2508	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2509	1-216-130-11	METAL GLAZE	2.4M	5%	1/10W	
R2510	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2511	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2512	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R2513	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2514	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R2515	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2516	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2517	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2518	1-216-072-00	METAL GLAZE	9.1K	5%	1/10W	
R2519	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2520	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2521	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2522	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2523	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2524	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R2526	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2527	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2528	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2529	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2530	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2531	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2532	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2533	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2534	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2535	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2536	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R2537	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2539	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2540	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2541	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R2542	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2543	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2544	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2545	1-216-048-00	METAL GLAZE	910	5%	1/10W	
R2546	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2547	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2548	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2549	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2550	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R2551	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R2552	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2553	1-216-078-00	METAL GLAZE	16K	5%	1/10W	
R2554	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R2555	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2556	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2557	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2558	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R2559	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R2560	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R2561	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2562	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2563	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R2564	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R2565	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R2566	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2567	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2568	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2569	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2570	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R2571	1-216-078-00	METAL GLAZE	16K	5%	1/10W	
R2572	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2573	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R2574	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2575	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2576	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2577	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2578	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2579	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2580	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2581	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2582	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R2583	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R2584	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2585	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2586	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2587	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2588	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2589	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2590	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2591	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2592	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2593	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2594	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2595	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2596	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2597	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2598	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2599	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2600	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2601	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2602	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2604	1-216-089-00	METAL GLAZE	47K	5%	1/10W	

X2 **G**

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R2605	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2606	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2610	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W
R2611	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W
R2612	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W
R2613	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W
R2614	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W
R2615	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W
R2616	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W
R2617	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W
R2618	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R2619	1-216-049-00	METAL GLAZE	1K	5%	1/10W

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*A-1316-134-A	G BOARD, COMPLETE *****************
1-533-223-11	CLIP, FUSE
3-701-754-00	PLATE, INSULATING
*4-341-751-01	EYELET (EY3~EY14,EY19~EY27,EY32~EY54, EY57,EY60~EY84,EY88~EY106)
*4-341-752-01	EYELET (EY1,EY2,EY28~EY31,EY85~EY87)
4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C601	1-165-137-91	CERAMIC	4700PF	10%	500V
C602	1-130-317-00	FILM	0.068MF	5%	100V
C603	1-124-634-11	ELECT	1MF	20%	250V
C605	1-164-143-11	CERAMIC	0.001MF	10%	1KV
C606	1-124-563-11	ELECT	2200MF	20%	25V
C607	1-124-563-11	ELECT	2200MF	20%	25V
C608	1-128-484-11	ELECT	100MF	20%	200V
C609	1-137-141-11	FILM	0.082MF	3%	600V
C610	1-124-046-00	ELECT	10MF		160V
C611	1-124-798-11	ELECT	1MF	20%	160V
C612	1-124-962-11	ELECT	2200MF	20%	25V
C613	1-124-557-11	ELECT	1000MF	20%	25V
C614	1-126-326-51	ELECT	10MF	20%	200V
C615	1-124-798-11	ELECT	1MF	20%	160V
C616	1-124-557-11	ELECT	1000MF	20%	25V
C617	1-164-143-11	CERAMIC	0.001MF	10%	1KV
C618	1-136-853-11	FILM	0.56MF	5%	200V
C619	1-164-735-11	CAP, CERAMIC	1500PF		
C620	1-136-721-21	FILM	1.5MF	10%	400V
C621	1-164-143-11	CERAMIC	0.001MF	10%	1KV
C622	1-136-853-11	FILM	0.56MF	5%	200V
C623	1-137-087-11	FILM	0.068MF	3%	0
C624	1-126-771-21	ELECT	100MF	20%	160V
C625	1-126-183-11	ELECT	1000MF	20%	16V
C626	1-126-373-11	ELECT	470MF	20%	10V
C628	1-165-137-91	CERAMIC	4700PF	10%	500V
C629	1-124-607-11	ELECT	2200MF	20%	50V
C631	1-126-803-11	ELECT	47MF	20%	50V
C632	1-124-903-11	ELECT	1MF	20%	50V
C633	1-130-483-00	MYLAR	0.01MF	5%	50V
C634	1-126-803-11	ELECT	47MF	20%	16V
C636	1-129-726-00	FILM	0.1MF	10%	630V
C637 ⚠.	1-136-311-51	FILM	0.47MF	20%	125V
C638 ⚠.	1-161-743-12	CERAMIC	0.0047MF		400V
C639 ⚠.	1-125-692-11	ELECT(BLOCK)	820MF	20%	200V
C640 ⚠.	1-136-311-51	FILM	0.47MF	20%	125V
C641	1-126-101-11	ELECT	100MF	20%	16V
C642 ⚠.	1-161-743-12	CERAMIC	0.0047MF		400V
C643	1-124-935-11	ELECT	470MF	20%	100V
C644	1-126-376-11	ELECT	470MF	20%	25V
C645	1-124-907-11	ELECT	10MF	20%	50V
C646	1-124-907-11	ELECT	10MF	20%	50V
C647 ⚠.	1-164-486-51	CERAMIC	0.0033MF	20%	400V
C648 ⚠.	1-125-692-11	ELECT(BLOCK)	820MF	20%	200V
C649 ⚠.	1-164-486-51	CERAMIC	0.0033MF	20%	400V
C650 ⚠.	1-161-743-12	CERAMIC	0.0047MF		400V
C660	1-102-074-00	CERAMIC	0.001MF	10%	50V
C661	1-101-006-00	CERAMIC	0.047MF		50V
C662	1-124-477-11	ELECT	47MF	20%	16V
C663	1-126-105-11	ELECT	1000MF	20%	35V
C664	1-126-160-11	ELECT	1MF	20%	50V
C670	1-102-074-00	CERAMIC	0.001MF	10%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D601	8-719-979-58	DIODE EGP10D	
D602	8-719-979-58	DIODE EGP10D	
D603	8-719-500-67	DIODE D5KC40H	
D604	8-719-510-09	DIODE D10SC6M	
D605	8-719-988-31	DIODE D10SC6MR	
D606	8-719-109-85	DIODE RD5.1ES-B2	
D607	8-719-025-81	DIODE S3V10SB	
D608	8-719-109-85	DIODE RD5.1ES-B2	
D609	8-719-109-84	DIODE RD5.1ES-B1	
D610	8-719-979-58	DIODE EGP10D	
D611	8-719-979-58	DIODE EGP10D	
D612	8-719-979-58	DIODE EGP10D	
D613	8-719-300-33	DIODE RU-3AM	
D614	8-719-979-58	DIODE EGP10D	
D615	8-719-975-76	DIODE SB-140	
D616	8-719-025-81	DIODE S3V10SB	
D617	8-719-110-02	DIODE RD7.5ES-B1	
D618	8-719-911-19	DIODE 1SS119	
D619	8-719-975-76	DIODE SB-140	
D620 ⚠.	8-719-988-31	DIODE D10SC6MR	
D621	8-719-911-55	DIODE U05G	
D622	8-719-911-55	DIODE U05G	
D623	8-719-110-63	DIODE RD24ES-B3	
D624	8-719-109-89	DIODE RD5.6ES-B2	
D625	8-719-911-19	DIODE 1SS119	
D626	8-719-911-55	DIODE U05G	
D627	8-719-911-19	DIODE 1SS119	
D628	8-719-110-49	DIODE RD18ES-B2	
D629	8-719-911-19	DIODE 1SS119	
D630	8-719-913-64	THYRISTOR CSM2B4A10	
D631	8-719-911-19	DIODE 1SS119	
D632	8-719-500-67	DIODE D5KC40H	
D633 ⚠.	8-719-505-60	DIODE S5VB60	
D634	8 719 911-19	DIODE 1SS119	
D636	8-719-109-85	DIODE RD5.1ES-B2	
D638	8-719-911-19	DIODE 1SS119	
D639	8-719-981-00	DIODE ERB81-004	
D640 ⚠.	8-719-510-09	DIODE D10SC6M	
D645	8-719-200-02	DIODE 10E2	
D650	8-719-160-81	DIODE RD27F-B2	

<FUSE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
F601 ⚠.	1-532-748-11	FUSE, GLASS TUBE 6.3A/125V	

<FERRITE BEAD>

The components identified by shading and mark ⚠ are critical for safety.
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REF.NO.	PART NO.	DESCRIPTION	REMARK
FB601	1-410-396-41	FERRITE BEAD INDUCTOR	
FB602	1-410-397-21	FERRITE BEAD INDUCTOR	
FB604	1-410-396-41	FERRITE BEAD INDUCTOR	
FB606	1-410-397-21	FERRITE BEAD INDUCTOR	
FB607	1-410-397-21	FERRITE BEAD INDUCTOR	
FB608	1-410-396-41	FERRITE BEAD INDUCTOR	
FB612	1-410-397-21	FERRITE BEAD INDUCTOR	
FB622	1-410-397-21	FERRITE BEAD INDUCTOR	
FB623	1-410-397-21	FERRITE BEAD INDUCTOR	
FB630	1-410-396-41	FERRITE BEAD INDUCTOR	
FB631	1-410-396-41	FERRITE BEAD INDUCTOR	
		<CONNECTOR>	
G1	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G2	*1-564-512-11	PLUG, CONNECTOR 9P	
G3	*1-564-507-11	PLUG, CONNECTOR 4P	
G4	*1-564-511-11	PLUG, CONNECTOR 8P	
G5	*1-564-508-11	PLUG, CONNECTOR 5P	
G6	*1-564-507-11	PLUG, CONNECTOR 4P	
G7	*1-564-507-11	PLUG, CONNECTOR 4P	
G8	*1-580-843-11	PIN, CONNECTOR (POWER)	
G9	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
G10	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G11	*1-564-511-11	PLUG, CONNECTOR 8P	
G12	*1-564-505-11	PLUG, CONNECTOR 2P	
		<IC>	
IC601 ⚠	8-749-921-89	IC SE115N	
IC602	8-759-143-02	IC UPC7812HF	
IC606	8-759-506-79	IC IR3M02	
		<COIL>	
L602	1-459-862-11	COIL, CHOKE 90UH	
L604	1-408-404-00	INDUCTOR 3.9UH	
L605	1-412-526-11	INDUCTOR 12UH	
L607	1-408-404-00	INDUCTOR 3.9UH	
L610	1-424-602-11	COIL, CHOKE 800UH	
L611	1-412-546-41	INDUCTOR 560UH	
L612	1-412-540-41	INDUCTOR 180UH	
L613	1-412-522-41	INDUCTOR 5.6UH	
		<TRANSISTOR>	
Q601	8-729-313-82	TRANSISTOR 2SD1138-C	
Q602	8-729-906-39	TRANSISTOR 2SC3271-P	
Q603	8-729-011-15	TRANSISTOR 2SC4582NP	
Q604	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q606	8-729-255-12	TRANSISTOR 2SC2551-O	
Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q608	8-729-906-39	TRANSISTOR 2SC3271-P	
Q609	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q610	8-729-820-82	TRANSISTOR 2SA1208-S	
Q611	8-729-820-82	TRANSISTOR 2SA1208-S	
Q612	8-729-386-12	TRANSISTOR 2SB861-C	
Q613	8-729-209-15	TRANSISTOR 2SD2012	
Q614	8-729-011-15	TRANSISTOR 2SC4582NP	
Q615	8-729-820-82	TRANSISTOR 2SA1208-S	
Q616	8-729-208-39	TRANSISTOR 2SA1306A-Y	
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q620	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q621	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q623	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q624	8-729-103-80	TRANSISTOR 2SA1261-K	
Q629	8-729-378-84	TRANSISTOR 2SD788-5	
Q630	8-729-255-12	TRANSISTOR 2SC2551-O	
		<RESISTOR>	
R602	1-249-424-11	CARBON 3.9K 5% 1/4W	F
R603	1-214-779-00	METAL 120K 1% 1/4W	
R604	1-202-933-61	FUSIBLE 0.1 10% 1/2W	F
R605	1-249-428-11	CARBON 8.2K 5% 1/4W	
R606	1-260-126-91	CARBON 180K 5% 1/2W	
R607	1-249-418-11	CARBON 1.2K 5% 1/4W	F
R608	1-215-436-00	METAL 4.3K 1% 1/4W	
R609	1-249-438-11	CARBON 56K 5% 1/4W	F
R610	1-249-418-11	CARBON 1.2K 5% 1/4W	
R611	1-249-418-11	CARBON 1.2K 5% 1/4W	F
R612	1-202-883-11	SOLID 680K 20% 1/2W	
R613	1-216-386-11	METAL OXIDE 0.56 5% 3W	F
R614	1-249-418-11	CARBON 1.2K 5% 1/4W	
R615	1-215-436-00	METAL 4.3K 1% 1/4W	
R616	1-214-742-00	METAL 3.6K 1% 1/4W	
R617	1-216-356-00	METAL OXIDE 3.9 5% 1W	F
R618	1-249-418-11	CARBON 1.2K 5% 1/4W	
R619	1-216-444-11	METAL OXIDE 82K 5% 1W	F
R620	1-249-418-11	CARBON 1.2K 5% 1/4W	F
R621	1-247-691-11	CARBON 18 5% 1/4W	F
R622	1-249-424-11	CARBON 3.9K 5% 1/4W	F
R623	1-249-417-11	CARBON 1K 5% 1/4W	
R624	1-214-780-00	METAL 130K 1% 1/4W	
R625	1-216-386-11	METAL OXIDE 0.56 5% 3W	F
R626	1-216-356-00	METAL OXIDE 3.9 5% 1W	F
R627	1-202-883-11	SOLID 680K 20% 1/2W	
R628	1-249-410-11	CARBON 270 5% 1/4W	F
R629	1-207-620-00	WIREWOUND 1 10% 3W	F
R631	1-249-417-11	CARBON 1K 5% 1/4W	F
R632	1-214-913-00	METAL 100K 1% 1/2W	
R633	1-249-429-11	CARBON 10K 5% 1/4W	
R634	1-249-441-11	CARBON 100K 5% 1/4W	
R635	1-215-897-11	METAL OXIDE 6.8K 5% 2W	F
R636	1-260-065-91	CARBON 1.2 5% 1/2W	
R638	1-249-405-11	CARBON 100 5% 1/4W	F
R639	1-249-405-11	CARBON 100 5% 1/4W	F
R640	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R641	1-249-429-11	CARBON 10K 5% 1/4W	
R642	1-215-421-00	METAL 1K 1% 1/4W	
R643	1-260-123-11	CARBON 100K 5% 1/2W	
R644	1-249-415-11	CARBON 680 5% 1/4W	
R645	1-249-417-11	CARBON 1K 5% 1/4W	
R646	1-215-465-00	METAL 68K 1% 1/4W	
R647	1-215-425-00	METAL 1.5K 1% 1/4W	
R649	1-249-424-11	CARBON 3.9K 5% 1/4W	
R650	1-249-377-11	CARBON 0.47 5% 1/4W	F
R651	1-215-429-00	METAL 2.2K 1% 1/4W	
⧓R652 ⚠		METAL 1/4W	
R654	1-215-429-00	METAL 2.2K 1% 1/4W	
R655	1-249-426-11	CARBON 5.6K 5% 1/4W	
R656	1-215-454-00	METAL 24K 1% 1/4W	
R657	1-216-386-11	METAL OXIDE 0.56 5% 3W	F
R660	1-249-413-11	CARBON 470 5% 1/4W	
R661 ⚠	1-202-884-91	SOLID 820K 20% 1/2W	
R662 ⚠	1-205-900-11	WIREWOUND 1.2 5% 15W	

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

G CR

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R663 ⚠	1-215-904-91	METAL OXIDE	100K	5%	2W	F
R664	1-216-380-11	METAL OXIDE	8.2	5%	2W	F
R665	1-216-380-11	METAL OXIDE	8.2	5%	2W	F
R666	1-249-377-11	CARBON	0.47	5%	1/4W	F
R667 ⚠	1-202-888-91	SOLID	2.2M	20%	1/2W	
R668 ⚠	1-215-904-91	METAL OXIDE	100K	5%	2W	F
R669	1-249-377-11	CARBON	0.47	5%	1/4W	F
R671	1-249-405-11	CARBON	100	5%	1/4W	
R672	1-215-415-00	METAL	560	1%	1/4W	
R673	1-215-429-00	METAL	2.2K	1%	1/4W	
R674	1-249-433-11	CARBON	22K	5%	1/4W	
R675	1-249-377-11	CARBON	0.47	5%	1/4W	F
R676	1-249-428-11	CARBON	8.2K	5%	1/4W	
R677	1-249-425-11	CARBON	4.7K	5%	1/4W	
R678	1-249-433-11	CARBON	22K	5%	1/4W	
R679	1-215-438-00	METAL	5.1K	1%	1/4W	
R680	1-216-433-00	METAL OXIDE	1.2K	5%	1W	F
R681	1-216-341-11	WIREWOUND	0.22	10%	1/2W	
R683	1-215-429-00	METAL	2.2K	1%	1/4W	
R684	1-249-421-11	CARBON	2.2K	5%	1/4W	
R685	1-216-469-11	METAL OXIDE	12	5%	3W	F
R686	1-249-377-11	CARBON	0.47	5%	1/4W	F
R687	1-249-417-11	CARBON	1K	5%	1/4W	F
R689	1-247-742-11	CARBON	180	5%	1/2W	F
R690	1-215-919-11	METAL OXIDE	2.2K	5%	3W	F
R691	1-249-421-11	CARBON	2.2K	5%	1/4W	
R692	1-215-442-00	METAL	7.5K	1%	1/4W	
R694	1-249-421-11	CARBON	2.2K	5%	1/4W	
R697	1-249-382-11	CARBON	1.2	5%	1/4W	F
R698	1-216-386-11	METAL OXIDE	0.56	5%	3W	F

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV601	1-241-627-11	RES, ADJ, CARBON 1K
RV602	1-241-627-11	RES, ADJ, CARBON 1K
RV603	1-241-627-11	RES, ADJ, CARBON 1K

<RELAY>

REF.NO.	PART NO.	DESCRIPTION
RY601 ⚠	1-515-805-11	RELAY, POWER
RY602 ⚠	1-515-805-11	RELAY, POWER

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T601 ⚠	1-450-791-12	TRANSFORMER, POWER ISOLATION
T603 ⚠	1-424-020-11	PRT
T604 ⚠	1-450-149-11	TRANSFORMER, HEATER
T605 ⚠	1-424-023-12	TRANSFORMER, LINE FILTER
T606 ⚠	1-421-372-21	TRANSFORMER, FERRITE (LFT)
T608 ⚠	1-424-621-11	TRANSFORMER, FERRITE (BS.P.T)

<VARISTOR>

REF.NO.	PART NO.	DESCRIPTION
VDR601 ⚠	1-809-786-11	VARISTOR

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PART NO.	DESCRIPTION
*A-1331-206-A	CR BOARD, COMPLETE ******************
*4-341-751-01	EYELET (EY4,EY5,EY16,EY18)
*4-341-752-01	EYELET (EY1~EY3)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C701	1-162-115-00	CERAMIC	330PF	10%	2KV
C702	1-123-948-00	ELECT	22MF	20%	250V
C703	1-102-050-00	CERAMIC	0.01MF		500V
C704	1-162-115-00	CERAMIC	330PF	10%	2KV
C705	1-130-479-00	MYLAR	0.0047MF	5%	50V
C706	1-101-006-00	CERAMIC	0.047MF		50V
C707	1-101-006-00	CERAMIC	0.047MF		50V
C709	1-124-120-11	ELECT	220MF	20%	16V
C710	1-124-120-11	ELECT	220MF	20%	16V
C711	1-102-112-00	CERAMIC	330PF	10%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CR1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CR3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CR4	*1-564-511-11	PLUG, CONNECTOR 8P
CR15	*1-564-508-11	PLUG, CONNECTOR 5P

<PICTURE TUBE SOCKET>

REF.NO.	PART NO.	DESCRIPTION
CRT701 ⚠	1-251-026-11	SOCKET, PICTURE TUBE

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D701	8-719-911-19	DIODE 1SS119
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119
D705	8-719-911-19	DIODE 1SS119
D706	8-719-911-19	DIODE 1SS119
D707	8-719-110-36	DIODE RD13ES-B2

<COIL>

REF.NO.	PART NO.	DESCRIPTION
L701	1-408-429-00	INDUCTOR 470UH
L702	1-408-159-00	COIL, SPOOK CHOKE 3.3UH
L703	1-408-159-00	COIL, SPOOK CHOKE 3.3UH
L704	1-408-413-00	INDUCTOR 22UH

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION
NL701	1-519-108-99	LAMP, NEON
NL702	1-519-108-99	LAMP, NEON

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q703	8-729-119-80	TRANSISTOR 2SC2688-LK
	4-373-933-01	SHEET (TRANSISTOR), BN; Q703
	4-382-854-11	SCREW (M3X10), P, SW (+); Q703
Q704	8-729-255-12	TRANSISTOR 2SC2551-0
Q705	8-729-200-17	TRANSISTOR 2SA1091-0
Q706	8-729-200-17	TRANSISTOR 2SA1091-0

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R701	1-202-847-00	SOLID	560K	20%	1/2W	
R702	1-202-814-11	SOLID	33K	20%	1/2W	
R703	1-202-818-00	SOLID	1K	20%	1/2W	
R704	1-202-842-11	SOLID	220K	20%	1/2W	
R705	1-202-828-11	SOLID	6.8K	20%	1/2W	
R706	1-202-561-81	SOLID	330	20%	1/2W	
R707	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R708	1-249-405-11	CARBON	100	5%	1/4W	F

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R709	1-249-405-11	CARBON	100	5%	1/4W	F
R710	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R711	1-249-405-11	CARBON	100	5%	1/4W	F
R712	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R714	1-249-401-11	CARBON	47	5%	1/4W	
R716	1-249-405-11	CARBON	100	5%	1/4W	
R717	1-249-403-11	CARBON	68	5%	1/4W	
R718	1-249-412-11	CARBON	390	5%	1/4W	
R719	1-249-410-11	CARBON	270	5%	1/4W	
R720	1-249-405-11	CARBON	100	5%	1/4W	
R721	1-249-409-11	CARBON	220	5%	1/4W	
R722	1-215-423-00	METAL	1.2K	1%	1/4W	
R723	1-249-410-11	CARBON	270	5%	1/4W	
R724	1-215-429-00	METAL	2.2K	1%	1/4W	

<SPARK GAP>

SG701	1-519-422-11	GAP, SPARK
SG702	1-519-422-11	GAP, SPARK

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*A-1331-207-A CG BOARD, COMPLETE
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*4-341-751-01	EYELET (EY9,EY10,EY17)
*4-341-752-01	EYELET (EY6~EY8)
4-373-933-01	SHEET (TRANSISTOR), BN
4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

C731	1-162-115-00	CERAMIC	330PF	10%	2KV
C732	1-123-948-00	ELECT	22MF	20%	250V
C733	1-102-050-00	CERAMIC	0.01MF		500V
C734	1-162-115-00	CERAMIC	330PF	10%	2KV
C735	1-130-479-00	MYLAR	0.0047MF	5%	50V
C736	1-101-006-00	CERAMIC	0.047MF		50V
C737	1-101-006-00	CERAMIC	0.047MF		50V
C739	1-124-120-11	ELECT	220MF	20%	16V
C740	1-124-120-11	ELECT	220MF	20%	16V
C741	1-102-112-00	CERAMIC	330PF	10%	50V

<CONNECTOR>

CG1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CG3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CG16	*1-564-508-11	PLUG, CONNECTOR 5P

<PICTURE TUBE SOCKET>

CRT731⚠	1-251-026-11	SOCKET, PICTURE TUBE

<DIODE>

D731	8-719-911-19	DIODE 1SS119
D732	8-719-911-19	DIODE 1SS119
D733	8-719-911-19	DIODE 1SS119
D734	8-719-911-19	DIODE 1SS119
D735	8-719-911-19	DIODE 1SS119
D736	8-719-911-19	DIODE 1SS119
D737	8-719-911-19	DIODE 1SS119

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L731	1-408-429-00	INDUCTOR	470UH	
L732	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L733	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L734	1-408-413-00	INDUCTOR	22UH	

<NEON LAMP>

NL731	1-519-108-99	LAMP, NEON
NL732	1-519-108-99	LAMP, NEON

<TRANSISTOR>

Q731	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q733	8-729-119-80	TRANSISTOR 2SC2688-LK
Q734	8-729-255-12	TRANSISTOR 2SC2551-0
Q735	8-729-200-17	TRANSISTOR 2SA1091-0
Q736	8-729-200-17	TRANSISTOR 2SA1091-0

<RESISTOR>

R731	1-202-847-00	SOLID	560K	20%	1/2W	
R732	1-202-814-11	SOLID	33K	20%	1/2W	
R733	1-202-818-00	SOLID	1K	20%	1/2W	
R734	1-202-842-11	SOLID	220K	20%	1/2W	
R735	1-202-828-11	SOLID	6.8K	20%	1/2W	
R736	1-202-561-81	SOLID	330	20%	1/2W	
R737	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R738	1-249-405-11	CARBON	100	5%	1/4W	F
R739	1-249-405-11	CARBON	100	5%	1/4W	F
R740	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R741	1-249-405-11	CARBON	100	5%	1/4W	F
R742	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R744	1-249-401-11	CARBON	47	5%	1/4W	
R745	1-215-455-00	METAL	27K	1%	1/4W	
R746	1-249-405-11	CARBON	100	5%	1/4W	
R747	1-249-403-11	CARBON	68	5%	1/4W	
R748	1-249-412-11	CARBON	390	5%	1/4W	
R749	1-249-410-11	CARBON	270	5%	1/4W	
R750	1-249-405-11	CARBON	100	5%	1/4W	
R751	1-249-409-11	CARBON	220	5%	1/4W	
R752	1-215-423-00	METAL	1.2K	1%	1/4W	
R754	1-215-429-00	METAL	2.2K	1%	1/4W	

<SPARK GAP>

SG731	1-519-422-11	GAP, SPARK
SG732	1-519-422-11	GAP, SPARK

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*A-1331-208-A CB BOARD, COMPLETE
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*4-341-751-01	EYELET (EY14,EY15)
*4-341-752-01	EYELET (EY11~EY13)
4-373-933-01	SHEET (TRANSISTOR), BN
4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

C761	1-162-115-00	CERAMIC	330PF	10%	2KV
C762	1-123-948-00	ELECT	22MF	20%	250V
C763	1-102-050-00	CERAMIC	0.01MF		500V
C764	1-162-115-00	CERAMIC	330PF	10%	2KV
C765	1-130-479-00	MYLAR	0.0047MF	5%	50V

CB V

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
C766	1-101-006-00	CERAMIC	0.047MF		50V	
C767	1-101-006-00	CERAMIC	0.047MF		50V	
C769	1-124-120-11	ELECT	220MF	20%	16V	
C770	1-124-120-11	ELECT	220MF	20%	16V	
C771	1-102-112-00	CERAMIC	330PF	10%	50V	
		<CONNECTOR>				
CB1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CB3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
CB4	*1-564-511-11	PLUG, CONNECTOR 8P				
CB5	*1-564-511-11	PLUG, CONNECTOR 8P				
CB17	*1-564-508-11	PLUG, CONNECTOR 5P				
		<PICTURE TUBE SOCKET>				
CRT761⚠	1-251-026-11	SOCKET, PICTURE TUBE				
		<DIODE>				
D761	8-719-911-19	DIODE 1SS119				
D762	8-719-911-19	DIODE 1SS119				
D763	8-719-911-19	DIODE 1SS119				
D764	8-719-911-19	DIODE 1SS119				
D765	8-719-911-19	DIODE 1SS119				
D766	8-719-911-19	DIODE 1SS119				
D768	8-719-911-19	DIODE 1SS119				
D769	8-719-109-81	DIODE RD4.7ES-B2				
		<COIL>				
L761	1-408-429-00	INDUCTOR	470UH			
L762	1-408-159-00	COIL, SPOOK CHOKE 3.3UH				
L763	1-408-159-00	COIL, SPOOK CHOKE 3.3UH				
L764	1-408-413-00	INDUCTOR	22UH			
		<NEON LAMP>				
NL761	1-519-108-99	LAMP, NEON				
NL762	1-519-108-99	LAMP, NEON				
		<TRANSISTOR>				
Q761	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q762	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q763	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q764	8-729-255-12	TRANSISTOR 2SC2551-0				
Q765	8-729-200-17	TRANSISTOR 2SA1091-0				
Q766	8-729-200-17	TRANSISTOR 2SA1091-0				
		<RESISTOR>				
R761	1-202-847-00	SOLID	560K	20%	1/2W	
R762	1-202-814-11	SOLID	33K	20%	1/2W	
R763	1-202-818-00	SOLID	1K	20%	1/2W	
R764	1-202-842-11	SOLID	220K	20%	1/2W	
R765	1-202-828-11	SOLID	6.8K	20%	1/2W	
R766	1-202-561-81	SOLID	330	20%	1/2W	
R767	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R768	1-249-405-11	CARBON	100	5%	1/4W	F
R769	1-249-405-11	CARBON	100	5%	1/4W	F
R770	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R771	1-249-405-11	CARBON	100	5%	1/4W	F
R772	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R773	1-249-413-11	CARBON	470	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R774	1-249-401-11	CARBON	47	5%	1/4W	
R776	1-249-405-11	CARBON	100	5%	1/4W	
R777	1-249-403-11	CARBON	68	5%	1/4W	
R778	1-249-412-11	CARBON	390	5%	1/4W	
R779	1-249-415-11	CARBON	680	5%	1/4W	
R780	1-249-405-11	CARBON	100	5%	1/4W	
R781	1-249-409-11	CARBON	220	5%	1/4W	
R782	1-215-423-00	METAL	1.2K	1%	1/4W	
R783	1-215-433-00	METAL	3.3K	1%	1/4W	
R784	1-215-429-00	METAL	2.2K	1%	1/4W	
R785	1-215-418-00	METAL	750	1%	1/4W	
		<SPARK GAP>				
SG761	1-519-422-11	GAP, SPARK				
SG762	1-519-422-11	GAP, SPARK				

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*A-1342-177-A V BOARD, COMPLETE
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*4-395-527-01 HOLDER (B), TR

		<CAPACITOR>			
C1501	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1502	1-126-101-11	ELECT	100MF	20%	16V
C1504	1-106-383-00	MYLAR	0.047MF		200V
C1505	1-124-907-11	ELECT	10MF	20%	50V
C1506	1-106-359-00	MYLAR	0.0047MF	10%	200V
C1507	1-106-367-00	MYLAR	0.01MF	10%	100V
C1508	1-162-318-11	CERAMIC	0.001MF	10%	500V
C1509	1-106-367-00	MYLAR	0.01MF	10%	100V
C1510	1-126-355-11	ELECT	33MF	20%	160V
C1511	1-124-668-91	ELECT	2.2MF	20%	200V
C1512	1-106-391-12	MYLAR	0.1MF	10%	200V
C1513	1-162-318-11	CERAMIC	0.001MF	10%	500V
C1514	1-102-951-00	CERAMIC	15PF	5%	50V
C1515	1-102-959-00	CERAMIC	22PF	5%	50V
C1516	1-102-963-00	CERAMIC	33PF	5%	50V
C1517	1-123-875-11	ELECT	10MF	20%	50V
C1518	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1519	1-106-359-00	MYLAR	0.0047MF	10%	200V
C1520	1-126-803-11	ELECT	47MF	20%	16V
C1521	1-124-907-11	ELECT	10MF	20%	50V
C1551	1-124-122-11	ELECT	100MF	20%	50V
C1552	1-124-122-11	ELECT	100MF	20%	50V
C1553	1-102-824-00	CERAMIC	470PF	5%	50V
C1554	1-102-824-00	CERAMIC	470PF	5%	50V
C1555	1-130-483-00	MYLAR	0.01MF	5%	50V
C1556	1-130-483-00	MYLAR	0.01MF	5%	50V
C1557	1-102-824-00	CERAMIC	470PF	5%	50V
C1558	1-102-824-00	CERAMIC	470PF	5%	50V
C1559	1-102-824-00	CERAMIC	470PF	5%	50V
C1560	1-102-824-00	CERAMIC	470PF	5%	50V
C1561	1-130-483-00	MYLAR	0.01MF	5%	50V
C1562	1-130-483-00	MYLAR	0.01MF	5%	50V
C1563	1-130-483-00	MYLAR	0.01MF	5%	50V
		<DIODE>			
D1501	8-719-911-19	DIODE 1SS119			
D1502	8-719-911-19	DIODE 1SS119			
D1503	8-719-911-19	DIODE 1SS119			

REF.NO.	PART NO.	DESCRIPTION				REMARK
D1504	8-719-911-19	DIODE 1SS119				
D1505	8-719-911-19	DIODE 1SS119				
D1506	8-719-911-19	DIODE 1SS119				
D1507	8-719-110-88	DIODE RD39ES-B2				
D1508	8-719-110-88	DIODE RD39ES-B2				
D1509	8-719-911-19	DIODE 1SS119				

<IC>

IC1551	8-759-145-58	IC UPC4558C
IC1552	8-759-912-77	IC LM324N

<COIL>

L1502	1-408-418-00	INDUCTOR	56UH

<TRANSISTOR>

Q1501	8-729-208-39	TRANSISTOR 2SA1306A-Y
Q1502	8-729-208-72	TRANSISTOR 2SC3298B-Y
Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1504	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1505	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1508	8-729-142-86	TRANSISTOR 2SC3733
Q1551	8-729-231-60	TRANSISTOR 2SD1406-YGR
Q1552	8-729-141-83	TRANSISTOR 2SB1094-LK
Q1553	8-729-231-60	TRANSISTOR 2SD1406-YGR
Q1554	8-729-141-83	TRANSISTOR 2SB1094-LK
Q1555	8-729-231-60	TRANSISTOR 2SD1406-YGR
Q1556	8-729-141-83	TRANSISTOR 2SB1094-LK

<RESISTOR>

R1501	1-249-451-71	CARBON	2.2	5%	1/4W	F
R1502	1-249-414-11	CARBON	560	5%	1/4W	F
R1503	1-247-734-11	CARBON	39	5%	1/2W	F
R1504	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1505	1-249-405-11	CARBON	100	5%	1/4W	
R1506	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1507	1-249-412-11	CARBON	390	5%	1/4W	
R1508	1-249-436-11	CARBON	39K	5%	1/4W	
R1509	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1510	1-249-436-11	CARBON	39K	5%	1/4W	
R1511	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1512	1-249-441-11	CARBON	100K	5%	1/4W	
R1513	1-249-432-11	CARBON	18K	5%	1/4W	
R1514	1-249-405-11	CARBON	100	5%	1/4W	
R1515	1-249-435-11	CARBON	33K	5%	1/4W	
R1517	1-247-713-11	CARBON	1K	5%	1/4W	F
R1519	1-215-916-00	METAL OXIDE	680	5%	3W	F
R1520	1-249-432-11	CARBON	18K	5%	1/4W	
R1521	1-249-414-11	CARBON	560	5%	1/4W	
R1522	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1523	1-249-400-11	CARBON	39	5%	1/4W	F
R1524	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1525	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1526	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1527	1-249-414-11	CARBON	560	5%	1/4W	
R1528	1-249-429-11	CARBON	10K	5%	1/4W	
R1529	1-249-414-11	CARBON	560	5%	1/4W	
R1530	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1531	1-249-429-11	CARBON	10K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1532	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1533	1-247-903-00	CARBON	1M	5%	1/4W	
R1534	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1535	1-249-392-11	CARBON	8.2	5%	1/4W	F
R1551	1-215-445-00	METAL	10K	1%	1/4W	
R1552	1-215-423-00	METAL	1.2K	1%	1/4W	
R1553	1-249-417-11	CARBON	1K	5%	1/4W	
R1554	1-215-445-00	METAL	10K	1%	1/4W	
R1555	1-215-375-00	METAL	12	1%	1/4W	
R1556	1-215-375-00	METAL	12	1%	1/4W	
R1557	1-215-375-00	METAL	12	1%	1/4W	
R1558	1-215-445-00	METAL	10K	1%	1/4W	
R1559	1-215-445-00	METAL	10K	1%	1/4W	
R1560	1-215-445-00	METAL	10K	1%	1/4W	
R1561	1-215-423-00	METAL	1.2K	1%	1/4W	
R1562	1-215-423-00	METAL	1.2K	1%	1/4W	
R1563	1-215-445-00	METAL	10K	1%	1/4W	
R1564	1-249-417-11	CARBON	1K	5%	1/4W	
R1565	1-215-445-00	METAL	10K	1%	1/4W	
R1566	1-215-375-00	METAL	12	1%	1/4W	
R1567	1-215-375-00	METAL	12	1%	1/4W	
R1568	1-215-375-00	METAL	12	1%	1/4W	
R1569	1-215-445-00	METAL	10K	1%	1/4W	
R1570	1-215-445-00	METAL	10K	1%	1/4W	
R1571	1-249-417-11	CARBON	1K	5%	1/4W	
R1572	1-215-445-00	METAL	10K	1%	1/4W	
R1573	1-215-375-00	METAL	12	1%	1/4W	
R1574	1-215-375-00	METAL	12	1%	1/4W	
R1575	1-215-375-00	METAL	12	1%	1/4W	
R1576	1-215-445-00	METAL	10K	1%	1/4W	
R1577	1-215-445-00	METAL	10K	1%	1/4W	
R1578	1-249-417-11	CARBON	1K	5%	1/4W	
R1579	1-249-417-11	CARBON	1K	5%	1/4W	
R1580	1-249-417-11	CARBON	1K	5%	1/4W	
R1581	1-249-432-11	CARBON	18K	5%	1/4W	
R1582	1-249-432-11	CARBON	18K	5%	1/4W	

<CONNECTOR>

V2	*1-564-518-11	PLUG, CONNECTOR 3P
V22	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P

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*1-644-278-12 DS BOARD
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<CAPACITOR>

C1745	1-126-101-11	ELECT	100MF	20%	16V
C1746	1-126-101-11	ELECT	100MF	20%	16V
C1747	1-126-101-11	ELECT	100MF	20%	16V
C1748	1-126-101-11	ELECT	100MF	20%	16V
C1750	1-126-233-11	ELECT	22MF	20%	25V
C1751	1-126-101-11	ELECT	100MF	20%	16V
C1752	1-126-233-11	ELECT	22MF	20%	25V
C1753	1-126-233-11	ELECT	22MF	20%	25V
C1851	1-102-074-00	CERAMIC	0.001MF	10%	50V

<CONNECTOR>

DS6	1-691-182-11	CONNECTOR (BOARD TO BOARD) 12P

DS **D**

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1711	8-759-111-69	IC UPC1037HA	
IC1712	8-759-602-19	IC M5220L	
IC1713	8-759-111-69	IC UPC1037HA	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R1840	1-215-445-00	METAL	10K	1%	1/4W
R1841	1-215-433-00	METAL	3.3K	1%	1/4W
R1842	1-215-465-00	METAL	68K	1%	1/4W
R1843	1-215-421-00	METAL	1K	1%	1/4W
R1844	1-215-455-00	METAL	27K	1%	1/4W
R1845	1-215-455-00	METAL	27K	1%	1/4W
R1846	1-215-421-00	METAL	1K	1%	1/4W
R1850	1-215-461-00	METAL	47K	1%	1/4W
R1851	1-215-461-00	METAL	47K	1%	1/4W
R1852	1-215-429-00	METAL	2.2K	1%	1/4W
R1853	1-215-397-00	METAL	100	1%	1/4W
R1854	1-215-429-00	METAL	2.2K	1%	1/4W
R1855	1-215-397-00	METAL	100	1%	1/4W
R1940	1-215-445-00	METAL	10K	1%	1/4W
R1941	1-215-433-00	METAL	3.3K	1%	1/4W
R1942	1-215-421-00	METAL	1K	1%	1/4W
R1943	1-215-465-00	METAL	68K	1%	1/4W
R1944	1-215-421-00	METAL	1K	1%	1/4W
R1945	1-215-455-00	METAL	27K	1%	1/4W
R1946	1-215-455-00	METAL	27K	1%	1/4W

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV983	1-241-630-11	RES, ADJ, CARBON 10K
RV984	1-241-630-11	RES, ADJ, CARBON 10K

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REF.NO.	PART NO.	DESCRIPTION
	*A-1341-540-A	D BOARD, COMPLETE *****************
	1-533-223-11	CLIP, FUSE
	*4-341-751-01	EYELET (EY1~EY10)
	4-382-854-11	SCREW (M3X10), P, SW (+)
	*4-395-527-01	HOLDER (B), TR

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C901	1-126-320-11	ELECT	10MF	20%	16V
C902	1-124-477-11	ELECT	47MF	20%	16V
C903	1-130-471-00	MYLAR	0.001MF	5%	50V
C904	1-130-471-00	MYLAR	0.001MF	5%	50V
C905	1-124-477-11	ELECT	47MF	20%	16V
C906	1-126-233-11	ELECT	22MF	20%	50V
C907	1-126-101-11	ELECT	100MF	20%	16V
C908	1-124-907-11	ELECT	10MF	20%	50V
C910	1-130-483-00	MYLAR	0.01MF	5%	50V
C911	1-131-341-00	TANTALUM	0.1MF	20%	16V
C912	1-124-903-11	ELECT	1MF	20%	50V
C913	1-126-233-11	ELECT	22MF	20%	50V
C914	1-126-803-11	ELECT	47MF	20%	16V
C915	1-124-927-11	ELECT	4.7MF	20%	50V
C916	1-102-074-00	CERAMIC	0.001MF	10%	50V
C917	1-130-471-00	MYLAR	0.001MF	5%	50V
C918	1-102-963-00	CERAMIC	33PF	5%	50V
C919	1-102-963-00	CERAMIC	33PF	5%	50V
C920	1-102-963-00	CERAMIC	33PF	5%	50V
C921	1-102-963-00	CERAMIC	33PF	5%	50V
C922	1-102-963-00	CERAMIC	33PF	5%	50V
C923	1-102-963-00	CERAMIC	33PF	5%	50V
C931	1-102-973-00	CERAMIC	100PF	5%	50V
C932	1-124-903-11	ELECT	1MF	20%	50V
C933	1-124-234-00	ELECT	22MF	20%	16V
C934	1-124-234-00	ELECT	22MF	20%	16V
C935	1-124-234-00	ELECT	22MF	20%	16V
C936	1-124-234-00	ELECT	22MF	20%	16V
C937	1-124-234-00	ELECT	22MF	20%	16V
C938	1-124-234-00	ELECT	22MF	20%	16V
C939	1-124-234-00	ELECT	22MF	20%	16V
C940	1-126-233-11	ELECT	22MF	20%	25V
C1701	1-124-907-11	ELECT	10MF	20%	50V
C1702	1-124-907-11	ELECT	10MF	20%	50V
C1703	1-124-907-11	ELECT	10MF	20%	50V
C1704	1-123-875-11	ELECT	10MF	20%	50V
C1705	1-102-963-00	CERAMIC	33PF	5%	50V
C1706	1-102-963-00	CERAMIC	33PF	5%	50V
C1707	1-102-963-00	CERAMIC	33PF	5%	50V
C1708	1-102-963-00	CERAMIC	33PF	5%	50V
C1709	1-102-963-00	CERAMIC	33PF	5%	50V
C1710	1-102-963-00	CERAMIC	33PF	5%	50V
C1711	1-126-233-11	ELECT	22MF	20%	50V
C1712	1-126-233-11	ELECT	22MF	20%	25V
C1713	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1714	1-124-478-11	ELECT	100MF	20%	25V
C1715	1-124-478-11	ELECT	100MF	20%	25V
C1716	1-126-803-11	ELECT	47MF	20%	25V
C1717	1-126-803-11	ELECT	47MF	20%	25V
C1718	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1719	1-124-234-00	ELECT	22MF	20%	16V
C1720	1-130-491-00	MYLAR	0.047MF	5%	50V
C1721	1-130-491-00	MYLAR	0.047MF	5%	50V
C1722	1-130-491-00	MYLAR	0.047MF	5%	50V
C1724	1-124-234-00	ELECT	22MF	20%	16V
C1725	1-102-963-00	CERAMIC	33PF	5%	50V
C1726	1-124-122-11	ELECT	100MF	20%	35V
C1727	1-102-963-00	CERAMIC	33PF	5%	50V
C1728	1-102-963-00	CERAMIC	33PF	5%	50V
C1729	1-106-367-00	MYLAR	0.01MF	10%	200V
C1730	1-102-963-00	CERAMIC	33PF	5%	50V
C1731	1-124-122-11	ELECT	100MF	20%	35V
C1732	1-106-367-00	MYLAR	0.01MF	10%	200V
C1733	1-102-963-00	CERAMIC	33PF	5%	50V
C1734	1-102-963-00	CERAMIC	33PF	5%	50V
C1735	1-124-122-11	ELECT	100MF	20%	35V
C1736	1-106-367-00	MYLAR	0.01MF	10%	200V
C1737	1-124-937-91	ELECT	10MF	20%	16V
C1738	1-124-122-11	ELECT	100MF	20%	35V
C1739	1-136-153-00	FILM	0.01MF	5%	50V
C1740	1-124-122-11	ELECT	100MF	20%	35V
C1741	1-124-122-11	ELECT	100MF	20%	35V
C1742	1-126-104-11	ELECT	470MF	20%	35V
C1744	1-124-478-11	ELECT	100MF	20%	25V
C1745	1-126-375-11	ELECT	100MF	20%	25V
C1763	1-126-096-11	ELECT	10MF	20%	25V
C1764	1-124-477-11	ELECT	47MF	20%	16V
C1765	1-124-477-11	ELECT	47MF	20%	16V
C1766	1-126-101-11	ELECT	100MF	20%	16V
C1769	1-126-157-11	ELECT	10MF	20%	16V
C1770	1-130-495-00	MYLAR	0.1MF	5%	50V
C1771	1-126-096-11	ELECT	10MF	20%	25V
C1772	1-126-096-11	ELECT	10MF	20%	25V
C1861	1-102-074-00	CERAMIC	0.001MF	10%	50V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1	*1-564-510-11	PLUG, CONNECTOR 7P	
D2	*1-564-511-11	PLUG, CONNECTOR 8P	
D3	*1-564-512-11	PLUG, CONNECTOR 9P	
D4	*1-564-508-11	PLUG, CONNECTOR 5P	
D5	*1-564-511-11	PLUG, CONNECTOR 8P	
D6	1-691-169-11	PIN, CONNECTOR 12P	
D7	*1-564-507-11	PLUG, CONNECTOR 4P	
D8	*1-564-506-11	PLUG, CONNECTOR 3P	
D9	*1-564-507-11	PLUG, CONNECTOR 4P	
D14	*1-564-513-11	PLUG, CONNECTOR 10P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D901	8-719-911-19	DIODE 1SS119	
D902	8-719-911-19	DIODE 1SS119	
D1701	8-719-900-95	DIODE V09G	
D1702	8-719-911-19	DIODE 1SS119	
D1703	8-719-900-95	DIODE V09G	
D1704	8-719-900-95	DIODE V09G	
D1705	8-719-900-95	DIODE V09G	
D1706	8-719-900-95	DIODE V09G	
D1707	8-719-911-19	DIODE 1SS119	
D1708	8-719-911-19	DIODE 1SS119	
D1709	8-719-911-19	DIODE 1SS119	
D1710	8-719-911-19	DIODE 1SS119	
D1711	8-719-911-19	DIODE 1SS119	
D1712	8-719-911-19	DIODE 1SS119	
D1713	8-719-911-19	DIODE 1SS119	
D1714	8-719-911-19	DIODE 1SS119	
D1715	8-719-911-19	DIODE 1SS119	
D1716	8-719-911-19	DIODE 1SS119	
D1717	8-719-911-19	DIODE 1SS119	
D1718	8-719-911-19	DIODE 1SS119	
D1720	8-719-109-50	DIODE RD2.0ES-B1	
D1721	8-719-109-50	DIODE RD2.0ES-B1	
D1722	8-719-109-50	DIODE RD2.0ES-B1	
D1723	8-719-109-50	DIODE RD2.0ES-B1	

<FUSE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
F901	⚠ 1-532-745-11	FUSE, GLASS TUBE 3.15A/125V	
F902	⚠ 1-532-745-11	FUSE, GLASS TUBE 3.15A/125V	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC901	8-759-145-58	IC UPC4558C	
IC902	8-752-033-68	IC CXA1268P	
IC903	8-759-701-56	IC NJM78M05FA	
IC904	8-759-701-65	IC NJM79M05FA	
IC905	8-759-701-89	IC NJM7915FA	
IC906	8-759-148-84	IC UPC2415HF	
IC907	8-759-140-53	IC UPD4053BC	
IC908	8-759-145-58	IC UPC4558C	
IC910	8-759-054-40	IC PA0036	
IC1701	8-759-602-19	IC M5220L	
IC1702	8-759-602-19	IC M5220L	
IC1703	8-759-602-19	IC M5220L	
IC1704	8-749-923-16	IC STK4278-L	
IC1705	8-749-923-16	IC STK4278-L	
IC1706	8-759-113-13	IC UPC1498H	
IC1707	8-759-113-13	IC UPC1498H	
IC1708	8-759-113-13	IC UPC1498H	
IC1709	8-759-145-58	IC UPC4558C	
IC1710	8-759-145-58	IC UPC4558C	
IC1714	8-759-145-58	IC UPC4558C	
IC1715	8-759-145-58	IC UPC4558C	
IC1718	8-759-145-58	IC UPC4558C	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L901	1-459-313-00	COIL WITH CORE (HWC)	
L902	1-459-313-00	COIL WITH CORE (HWC)	
L903	1-459-313-00	COIL WITH CORE (HWC)	
L904	1-459-313-00	COIL WITH CORE (HWC)	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q902	8-729-900-89	TRANSISTOR DTC144ES	
Q906	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q908	8-729-900-89	TRANSISTOR DTC144ES	
Q909	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q911	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R901	1-215-463-00	METAL	56K	1%	1/4W	
R902	1-215-463-00	METAL	56K	1%	1/4W	
R903	1-215-449-00	METAL	15K	1%	1/4W	
R904	1-215-455-00	METAL	27K	1%	1/4W	
R905	1-215-449-00	METAL	15K	1%	1/4W	
R906	1-215-469-00	METAL	100K	1%	1/4W	
R907	1-215-469-00	METAL	100K	1%	1/4W	
R908	1-215-469-00	METAL	100K	1%	1/4W	
R909	1-215-473-00	METAL	150K	1%	1/4W	
R910	1-215-437-00	METAL	4.7K	1%	1/4W	
R911	1-215-453-00	METAL	22K	1%	1/4W	
R912	1-215-453-00	METAL	22K	1%	1/4W	
R913	1-215-437-00	METAL	4.7K	1%	1/4W	
R914	1-215-453-00	METAL	22K	1%	1/4W	
R915	1-215-423-00	METAL	1.2K	1%	1/4W	
R916	1-215-453-00	METAL	22K	1%	1/4W	
R917	1-215-453-00	METAL	22K	1%	1/4W	
R919	1-215-399-00	METAL	120	1%	1/4W	
R920	1-215-399-00	METAL	120	1%	1/4W	
R921	1-215-399-00	METAL	120	1%	1/4W	
R922	1-215-399-00	METAL	120	1%	1/4W	
R923	1-215-451-00	METAL	18K	1%	1/4W	
R924	1-215-433-00	METAL	3.3K	1%	1/4W	
R925	1-215-433-00	METAL	3.3K	1%	1/4W	
R926	1-215-463-00	METAL	56K	1%	1/4W	
R927	1-215-463-00	METAL	56K	1%	1/4W	
R928	1-215-469-00	METAL	100K	1%	1/4W	
R929	1-215-433-00	METAL	3.3K	1%	1/4W	
R930	1-215-433-00	METAL	3.3K	1%	1/4W	
R931	1-215-433-00	METAL	3.3K	1%	1/4W	
R932	1-215-433-00	METAL	3.3K	1%	1/4W	
R933	1-215-433-00	METAL	3.3K	1%	1/4W	
R934	1-215-433-00	METAL	3.3K	1%	1/4W	
R935	1-215-439-00	METAL	5.6K	1%	1/4W	
R936	1-215-439-00	METAL	5.6K	1%	1/4W	
R937	1-215-439-00	METAL	5.6K	1%	1/4W	
R938	1-215-417-00	METAL	680	1%	1/4W	
R939	1-215-433-00	METAL	3.3K	1%	1/4W	
R940	1-215-429-00	METAL	2.2K	1%	1/4W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R941	1-215-441-00	METAL	6.8K	1%	1/4W	
R942	1-215-451-00	METAL	18K	1%	1/4W	
R943	1-215-441-00	METAL	6.8K	1%	1/4W	
R944	1-215-445-00	METAL	10K	1%	1/4W	
R945	1-215-445-00	METAL	10K	1%	1/4W	
R946	1-215-445-00	METAL	10K	1%	1/4W	
R947	1-215-439-00	METAL	5.6K	1%	1/4W	
R948	1-215-447-00	METAL	12K	1%	1/4W	
R949	1-215-439-00	METAL	5.6K	1%	1/4W	
R950	1-215-429-00	METAL	2.2K	1%	1/4W	
R951	1-215-429-00	METAL	2.2K	1%	1/4W	
R952	1-215-429-00	METAL	2.2K	1%	1/4W	
R953	1-215-439-00	METAL	5.6K	1%	1/4W	
R954	1-215-439-00	METAL	5.6K	1%	1/4W	
R955	1-215-435-00	METAL	3.9K	1%	1/4W	
R956	1-215-437-00	METAL	4.7K	1%	1/4W	
R957	1-215-441-00	METAL	6.8K	1%	1/4W	
R958	1-215-437-00	METAL	4.7K	1%	1/4W	
R959	1-215-439-00	METAL	5.6K	1%	1/4W	
R960	1-215-439-00	METAL	5.6K	1%	1/4W	
R961	1-215-439-00	METAL	5.6K	1%	1/4W	
R962	1-215-441-00	METAL	6.8K	1%	1/4W	
R963	1-215-441-00	METAL	6.8K	1%	1/4W	
R964	1-215-441-00	METAL	6.8K	1%	1/4W	
R965	1-215-909-11	METAL OXIDE	47	5%	3W	F
R966	1-215-469-00	METAL	100K	1%	1/4W	
R967	1-215-421-00	METAL	1K	1%	1/4W	
R968	1-215-437-00	METAL	4.7K	1%	1/4W	
R969	1-249-421-11	CARBON	2.2K	5%	1/4W	
R970	1-215-909-11	METAL OXIDE	47	5%	3W	F
R971	1-249-421-11	CARBON	2.2K	5%	1/4W	
R972	1-249-431-11	CARBON	15K	5%	1/4W	
R973	1-249-431-11	CARBON	15K	5%	1/4W	
R974	1-215-399-00	METAL	120	1%	1/4W	
R975	1-215-399-00	METAL	120	1%	1/4W	
R976	1-215-399-00	METAL	120	1%	1/4W	
R977	1-215-399-00	METAL	120	1%	1/4W	
R978	1-215-399-00	METAL	120	1%	1/4W	
R979	1-215-399-00	METAL	120	1%	1/4W	
R980	1-215-399-00	METAL	120	1%	1/4W	
R981	1-215-399-00	METAL	120	1%	1/4W	
R982	1-249-431-11	CARBON	15K	5%	1/4W	
R983	1-249-431-11	CARBON	15K	5%	1/4W	
R984	1-214-804-51	METAL	3.3	1%	1/2W	
R985	1-214-804-51	METAL	3.3	1%	1/2W	
R986	1-214-804-51	METAL	3.3	1%	1/2W	
R987	1-215-421-00	METAL	1K	1%	1/4W	
R988	1-215-421-00	METAL	1K	1%	1/4W	
R989	1-215-421-00	METAL	1K	1%	1/4W	
R990	1-215-421-00	METAL	1K	1%	1/4W	
R991	1-215-421-00	METAL	1K	1%	1/4W	
R992	1-215-421-00	METAL	1K	1%	1/4W	
R993	1-249-429-11	CARBON	10K	5%	1/4W	
R994	1-249-429-11	CARBON	10K	5%	1/4W	
R995	1-215-457-00	METAL	33K	1%	1/4W	
R996	1-215-473-00	METAL	150K	1%	1/4W	
R999	1-215-455-00	METAL	27K	1%	1/4W	
R1701	1-249-411-11	CARBON	330	5%	1/4W	
R1702	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1703	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1704	1-249-411-11	CARBON	330	5%	1/4W	
R1705	1-249-411-11	CARBON	330	5%	1/4W	
R1706	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1707	1-249-411-11	CARBON	330	5%	1/4W	
R1708	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1709	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1710	1-249-411-11	CARBON	330	5%	1/4W	
R1711	1-249-411-11	CARBON	330	5%	1/4W	
R1712	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1713	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1714	1-249-411-11	CARBON	330	5%	1/4W	
R1715	1-249-411-11	CARBON	330	5%	1/4W	
R1716	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1717	1-249-411-11	CARBON	330	5%	1/4W	
R1718	1-249-417-11	CARBON	1K	5%	1/4W	
R1719	1-214-792-00	METAL	1	1%	1/2W	
R1720	1-249-411-11	CARBON	330	5%	1/4W	
R1721	1-249-417-11	CARBON	1K	5%	1/4W	
R1722	1-249-411-11	CARBON	330	5%	1/4W	
R1723	1-249-417-11	CARBON	1K	5%	1/4W	
R1724	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1725	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1726	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1727	1-214-792-00	METAL	1	1%	1/2W	
R1728	1-214-792-00	METAL	1	1%	1/2W	
R1729	1-214-792-00	METAL	1	1%	1/2W	
R1730	1-249-405-11	CARBON	100	5%	1/4W	
R1731	1-249-417-11	CARBON	1K	5%	1/4W	
R1732	1-249-405-11	CARBON	100	5%	1/4W	
R1733	1-249-405-11	CARBON	100	5%	1/4W	
R1734	1-249-405-11	CARBON	100	5%	1/4W	
R1735	1-249-405-11	CARBON	100	5%	1/4W	
R1736	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1737	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1738	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1739	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1740	1-249-417-11	CARBON	1K	5%	1/4W	
R1741	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1742	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1743	1-249-417-11	CARBON	1K	5%	1/4W	
R1744	1-249-411-11	CARBON	330	5%	1/4W	
R1745	1-249-405-11	CARBON	100	5%	1/4W	
R1746	1-214-792-00	METAL	1	1%	1/2W	
R1747	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1748	1-215-421-00	METAL	1K	1%	1/4W	
R1749	1-215-421-00	METAL	1K	1%	1/4W	
R1750	1-215-421-00	METAL	1K	1%	1/4W	
R1751	1-215-421-00	METAL	1K	1%	1/4W	
R1752	1-215-421-00	METAL	1K	1%	1/4W	
R1753	1-215-421-00	METAL	1K	1%	1/4W	
R1754	1-214-792-00	METAL	1	1%	1/2W	
R1755	1-215-469-00	METAL	100K	1%	1/4W	
R1756	1-215-437-00	METAL	4.7K	1%	1/4W	
R1757	1-215-437-00	METAL	4.7K	1%	1/4W	
R1758	1-215-437-00	METAL	4.7K	1%	1/4W	
R1759	1-249-405-11	CARBON	100	5%	1/4W	
R1760	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1761	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1762	1-215-445-00	METAL	10K	1%	1/4W	
R1763	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1764	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1765	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1766	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1767	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1768	1-249-439-11	CARBON	68K	5%	1/4W	
R1769	1-215-445-00	METAL	10K	1%	1/4W	
R1770	1-249-405-11	CARBON	100	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1771	1-249-405-11	CARBON	100	5%	1/4W	
R1772	1-215-429-00	METAL	2.2K	1%	1/4W	
R1773	1-215-429-00	METAL	2.2K	1%	1/4W	
R1774	1-215-421-00	METAL	1K	1%	1/4W	
R1775	1-249-429-11	CARBON	10K	5%	1/4W	
R1776	1-215-421-00	METAL	1K	1%	1/4W	
R1777	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1778	1-215-421-00	METAL	1K	1%	1/4W	
R1779	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R1780	1-214-804-51	METAL	3.3	1%	1/2W	
R1781	1-214-804-51	METAL	3.3	1%	1/2W	
R1782	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R1783	1-214-804-51	METAL	3.3	1%	1/2W	
R1784	1-214-804-51	METAL	3.3	1%	1/2W	
R1785	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R1786	1-214-804-51	METAL	3.3	1%	1/2W	
R1787	1-214-804-51	METAL	3.3	1%	1/2W	
R1788	1-249-433-11	CARBON	22K	5%	1/4W	
R1789	1-249-441-11	CARBON	100K	5%	1/4W	
R1790	1-249-433-11	CARBON	22K	5%	1/4W	
R1791	1-249-429-11	CARBON	10K	5%	1/4W	
R1792	1-215-445-00	METAL	10K	1%	1/4W	
R1793	1-249-405-11	CARBON	100	5%	1/4W	
R1794	1-215-429-00	METAL	2.2K	1%	1/4W	
R1795	1-249-433-11	CARBON	22K	5%	1/4W	
R1796	1-249-405-11	CARBON	100	5%	1/4W	
R1797	1-249-429-11	CARBON	10K	5%	1/4W	
R1798	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1800	1-249-405-11	CARBON	100	5%	1/4W	
R1801	1-215-439-00	METAL	5.6K	1%	1/4W	
R1802	1-215-439-00	METAL	5.6K	1%	1/4W	
R1803	1-215-439-00	METAL	5.6K	1%	1/4W	
R1805	1-215-439-00	METAL	5.6K	1%	1/4W	
R1806	1-249-405-11	CARBON	100	5%	1/4W	
R1807	1-249-405-11	CARBON	100	5%	1/4W	
R1808	1-214-792-00	METAL	1	1%	1/2W	
R1809	1-214-792-00	METAL	1	1%	1/2W	
R1810	1-214-792-00	METAL	1	1%	1/2W	
R1811	1-214-792-00	METAL	1	1%	1/2W	
R1812	1-214-792-00	METAL	1	1%	1/2W	
R1813	1-214-792-00	METAL	1	1%	1/2W	
R1814	1-249-431-11	CARBON	15K	5%	1/4W	
R1815	1-247-885-00	CARBON	180K	5%	1/4W	
R1816	1-249-431-11	CARBON	15K	5%	1/4W	
R1817	1-247-885-00	CARBON	180K	5%	1/4W	
R1818	1-249-405-11	CARBON	100	5%	1/4W	
R1819	1-215-437-00	METAL	4.7K	1%	1/4W	
R1820	1-215-437-00	METAL	4.7K	1%	1/4W	
R1821	1-215-437-00	METAL	4.7K	1%	1/4W	
R1822	1-215-445-00	METAL	10K	1%	1/4W	
R1823	1-215-445-00	METAL	10K	1%	1/4W	
R1824	1-215-433-00	METAL	3.3K	1%	1/4W	
R1825	1-215-433-00	METAL	3.3K	1%	1/4W	
R1826	1-215-433-00	METAL	3.3K	1%	1/4W	
R1827	1-215-445-00	METAL	10K	1%	1/4W	
R1828	1-215-445-00	METAL	10K	1%	1/4W	
R1829	1-249-434-11	CARBON	27K	5%	1/4W	
R1830	1-249-434-11	CARBON	27K	5%	1/4W	
R1831	1-249-405-11	CARBON	100	5%	1/4W	
R1832	1-215-471-00	METAL	120K	1%	1/4W	
R1833	1-215-471-00	METAL	120K	1%	1/4W	
R1834	1-215-471-00	METAL	120K	1%	1/4W	
R1835	1-215-437-00	METAL	4.7K	1%	1/4W	
R1836	1-215-437-00	METAL	4.7K	1%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1837	1-215-421-00	METAL	1K	1%	1/4W	
R1838	1-249-431-11	CARBON	15K	5%	1/4W	
R1839	1-249-431-11	CARBON	15K	5%	1/4W	
R1858	1-215-445-00	METAL	10K	1%	1/4W	
R1859	1-215-445-00	METAL	10K	1%	1/4W	
R1860	1-215-397-00	METAL	100	1%	1/4W	
R1861	1-215-453-00	METAL	22K	1%	1/4W	
R1862	1-215-453-00	METAL	22K	1%	1/4W	
R1863	1-215-397-00	METAL	100	1%	1/4W	
R1864	1-215-437-00	METAL	4.7K	1%	1/4W	
R1865	1-215-453-00	METAL	22K	1%	1/4W	
R1866	1-215-453-00	METAL	22K	1%	1/4W	
R1867	1-215-437-00	METAL	4.7K	1%	1/4W	
R1868	1-215-449-00	METAL	15K	1%	1/4W	
R1869	1-215-445-00	METAL	10K	1%	1/4W	
R1870	1-215-445-00	METAL	10K	1%	1/4W	
R1871	1-215-445-00	METAL	10K	1%	1/4W	
R1872	1-215-437-00	METAL	4.7K	1%	1/4W	
R1873	1-215-437-00	METAL	4.7K	1%	1/4W	
R1874	1-215-437-00	METAL	4.7K	1%	1/4W	
R1875	1-215-437-00	METAL	4.7K	1%	1/4W	
R1876	1-215-437-00	METAL	4.7K	1%	1/4W	
R1877	1-215-437-00	METAL	4.7K	1%	1/4W	
R1878	1-215-475-00	METAL	180K	1%	1/4W	
R1879	1-215-475-00	METAL	180K	1%	1/4W	
R1880	1-215-475-00	METAL	180K	1%	1/4W	
R1881	1-215-461-00	METAL	47K	1%	1/4W	
R1882	1-215-445-00	METAL	10K	1%	1/4W	
R1883	1-215-453-00	METAL	22K	1%	1/4W	
R1884	1-215-397-00	METAL	100	1%	1/4W	
R1885	1-215-445-00	METAL	10K	1%	1/4W	
R1886	1-215-445-00	METAL	10K	1%	1/4W	
R1887	1-215-397-00	METAL	100	1%	1/4W	
R1888	1-215-461-00	METAL	47K	1%	1/4W	
R1889	1-215-457-00	METAL	33K	1%	1/4W	
R1890	1-215-457-00	METAL	33K	1%	1/4W	
R1892	1-215-445-00	METAL	10K	1%	1/4W	
R1894	1-215-429-00	METAL	2.2K	1%	1/4W	
R1895	1-215-445-00	METAL	10K	1%	1/4W	
R1896	1-215-445-00	METAL	10K	1%	1/4W	
R1897	1-215-449-00	METAL	15K	1%	1/4W	
R1898	1-215-445-00	METAL	10K	1%	1/4W	
R1899	1-215-421-00	METAL	1K	1%	1/4W	
R1900	1-215-429-00	METAL	2.2K	1%	1/4W	
R1901	1-215-449-00	METAL	15K	1%	1/4W	
R1902	1-215-445-00	METAL	10K	1%	1/4W	
R1903	1-215-445-00	METAL	10K	1%	1/4W	
R1904	1-215-445-00	METAL	10K	1%	1/4W	
R1905	1-215-445-00	METAL	10K	1%	1/4W	
R1906	1-215-429-00	METAL	2.2K	1%	1/4W	
R1907	1-215-445-00	METAL	10K	1%	1/4W	
R1908	1-215-445-00	METAL	10K	1%	1/4W	
R1909	1-215-445-00	METAL	10K	1%	1/4W	
R1910	1-215-445-00	METAL	10K	1%	1/4W	
R1911	1-215-453-00	METAL	22K	1%	1/4W	
R1916	1-215-423-00	METAL	1.2K	1%	1/4W	
R1920	1-215-453-00	METAL	22K	1%	1/4W	
R1921	1-215-445-00	METAL	10K	1%	1/4W	
R1922	1-215-445-00	METAL	10K	1%	1/4W	
R1924	1-215-429-00	METAL	2.2K	1%	1/4W	
R1925	1-215-429-00	METAL	2.2K	1%	1/4W	
R1926	1-215-429-00	METAL	2.2K	1%	1/4W	
R1927	1-215-445-00	METAL	10K	1%	1/4W	

D **H1**

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1928	1-215-421-00	METAL 1K 1% 1/4W	
R1929	1-215-445-00	METAL 10K 1% 1/4W	
R1930	1-215-397-00	METAL 100 1% 1/4W	
R1931	1-215-397-00	METAL 100 1% 1/4W	
R1932	1-215-453-00	METAL 22K 1% 1/4W	
R1933	1-215-453-00	METAL 22K 1% 1/4W	
R1934	1-215-429-00	METAL 2.2K 1% 1/4W	
R1937	1-215-445-00	METAL 10K 1% 1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV901	1-241-631-11	RES, ADJ, CARBON 22K	
RV902	1-241-631-11	RES, ADJ, CARBON 22K	
RV903	1-241-631-11	RES, ADJ, CARBON 22K	
RV904	1-241-631-11	RES, ADJ, CARBON 22K	
RV905	1-241-631-11	RES, ADJ, CARBON 22K	
RV906	1-241-631-11	RES, ADJ, CARBON 22K	
RV907	1-241-631-11	RES, ADJ, CARBON 22K	
RV908	1-241-631-11	RES, ADJ, CARBON 22K	
RV909	1-241-631-11	RES, ADJ, CARBON 22K	
RV910	1-241-631-11	RES, ADJ, CARBON 22K	
RV911	1-241-627-11	RES, ADJ, CARBON 1K	
RV912	1-241-631-11	RES, ADJ, CARBON 22K	
RV913	1-238-023-11	RES, ADJ, CARBON 470K	
RV914	1-241-630-11	RES, ADJ, CARBON 10K	
RV915	1-241-630-11	RES, ADJ, CARBON 10K	
RV916	1-241-631-11	RES, ADJ, CARBON 22K	
RV917	1-241-631-11	RES, ADJ, CARBON 22K	
RV918	1-241-631-11	RES, ADJ, CARBON 22K	
RV919	1-241-631-11	RES, ADJ, CARBON 22K	
RV920	1-241-631-11	RES, ADJ, CARBON 22K	
RV921	1-241-631-11	RES, ADJ, CARBON 22K	
RV922	1-241-631-11	RES, ADJ, CARBON 22K	
RV923	1-241-631-11	RES, ADJ, CARBON 22K	
RV924	1-241-631-11	RES, ADJ, CARBON 22K	
RV925	1-241-631-11	RES, ADJ, CARBON 22K	
RV926	1-241-631-11	RES, ADJ, CARBON 22K	
RV927	1-241-631-11	RES, ADJ, CARBON 22K	
RV928	1-241-629-11	RES, ADJ, CARBON 4.7K	
RV929	1-241-631-11	RES, ADJ, CARBON 22K	
RV930	1-241-629-11	RES, ADJ, CARBON 4.7K	
RV931	1-241-631-11	RES, ADJ, CARBON 22K	
RV932	1-241-631-11	RES, ADJ, CARBON 22K	
RV933	1-241-631-11	RES, ADJ, CARBON 22K	
RV934	1-241-631-11	RES, ADJ, CARBON 22K	
RV935	1-241-631-11	RES, ADJ, CARBON 22K	
RV936	1-241-631-11	RES, ADJ, CARBON 22K	
RV937	1-241-630-11	RES, ADJ, CARBON 10K	
RV938	1-241-630-11	RES, ADJ, CARBON 10K	
RV939	1-241-630-11	RES, ADJ, CARBON 10K	
RV940	1-241-631-11	RES, ADJ, CARBON 22K	
RV941	1-241-631-11	RES, ADJ, CARBON 22K	
RV942	1-241-631-11	RES, ADJ, CARBON 22K	
RV943	1-241-631-11	RES, ADJ, CARBON 22K	
RV944	1-241-631-11	RES, ADJ, CARBON 22K	
RV945	1-241-631-11	RES, ADJ, CARBON 22K	
RV946	1-241-631-11	RES, ADJ, CARBON 22K	
RV947	1-241-631-11	RES, ADJ, CARBON 22K	
RV948	1-241-631-11	RES, ADJ, CARBON 22K	
RV949	1-241-631-11	RES, ADJ, CARBON 22K	
RV950	1-241-631-11	RES, ADJ, CARBON 22K	
RV951	1-241-631-11	RES, ADJ, CARBON 22K	
RV952	1-241-631-11	RES, ADJ, CARBON 22K	
RV953	1-241-631-11	RES, ADJ, CARBON 22K	
RV954	1-241-631-11	RES, ADJ, CARBON 22K	
RV956	1-241-631-11	RES, ADJ, CARBON 22K	
RV957	1-241-631-11	RES, ADJ, CARBON 22K	
RV958	1-241-631-11	RES, ADJ, CARBON 22K	
RV959	1-241-631-11	RES, ADJ, CARBON 22K	
RV960	1-241-630-11	RES, ADJ, CARBON 10K	
RV961	1-241-631-11	RES, ADJ, CARBON 22K	
RV962	1-241-631-11	RES, ADJ, CARBON 22K	
RV963	1-241-631-11	RES, ADJ, CARBON 22K	
RV964	1-241-631-11	RES, ADJ, CARBON 22K	
RV965	1-241-631-11	RES, ADJ, CARBON 22K	
RV966	1-241-631-11	RES, ADJ, CARBON 22K	
RV967	1-241-631-11	RES, ADJ, CARBON 22K	
RV968	1-241-631-11	RES, ADJ, CARBON 22K	
RV969	1-241-631-11	RES, ADJ, CARBON 22K	
RV970	1-241-631-11	RES, ADJ, CARBON 22K	
RV971	1-241-631-11	RES, ADJ, CARBON 22K	
RV972	1-241-631-11	RES, ADJ, CARBON 22K	
RV973	1-241-631-11	RES, ADJ, CARBON 22K	
RV974	1-241-631-11	RES, ADJ, CARBON 22K	
RV975	1-241-631-11	RES, ADJ, CARBON 22K	
RV976	1-241-631-11	RES, ADJ, CARBON 22K	
RV977	1-241-631-11	RES, ADJ, CARBON 22K	
RV978	1-241-631-11	RES, ADJ, CARBON 22K	
RV979	1-241-631-11	RES, ADJ, CARBON 22K	
RV980	1-241-632-11	RES, ADJ, CARBON 47K	
RV981	1-241-631-11	RES, ADJ, CARBON 22K	
RV982	1-241-631-11	RES, ADJ, CARBON 22K	

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*1-643-591-12 H1 BOARD
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	4-033-777-01	HOLDER, LED	
	*4-341-751-01	EYELET (EY1601)	
	*4-374-987-01	GUIDE, LIGHT	
	*4-381-686-01	BRACKET (B), LIGHT GUIDE	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1601	1-124-907-11	ELECT 10MF 20% 50V	
C1602	1-124-907-11	ELECT 10MF 20% 50V	
C1603	1-124-907-11	ELECT 10MF 20% 50V	
C1604	1-124-261-00	ELECT 10MF 20% 50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1601	8-719-812-41	DIODE TLR124	
D1602	8-719-812-41	DIODE TLR124	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
H11	*1-564-526-11	PLUG, CONNECTOR 11P	
H15	*1-564-517-11	PLUG, CONNECTOR 2P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1601	8-741-148-33	IC SBX1483-59	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1601	1-249-430-11	CARBON 12K 5% 1/4W	
R1602	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1603	1-249-421-11	CARBON 2.2K 5% 1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1604	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1606	1-249-405-11	CARBON	100	5%	1/4W	
R1607	1-249-405-11	CARBON	100	5%	1/4W	
R1608	1-249-411-11	CARBON	330	5%	1/4W	
R1609	1-249-411-11	CARBON	330	5%	1/4W	

<SWITCH>

S1601	1-572-198-11	SWITCH, TACTIL
S1602	1-572-198-11	SWITCH, TACTIL
S1603	1-572-198-11	SWITCH, TACTIL
S1604	1-572-198-11	SWITCH, TACTIL
S1605	1-572-198-11	SWITCH, TACTIL
S1606⚠	1-571-731-21	SWITCH, TACTIL (POWER)

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*1-643-592-12 H2 BOARD
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*4-341-751-01 EYELET (EY1651~EY1653)

<CAPACITOR>

C1651	1-124-477-11	ELECT	47MF	20%	16V
C1655	1-124-927-11	ELECT	4.7MF	20%	50V

<DIODE>

D1651	8-719-911-55	DIODE U05G
D1652	8-719-911-55	DIODE U05G
D1653	8-719-108-12	DIODE RD9.1E-W
D1654	8-719-108-12	DIODE RD9.1E-W
D1655	8-719-108-12	DIODE RD9.1E-W
D1659	8-719-911-19	DIODE 1SS119
D1660	8-719-110-88	DIODE RD39ES-B2
D1661	8-719-110-88	DIODE RD39ES-B2
D1662	8-719-110-88	DIODE RD39ES-B2
D1663	8-719-110-88	DIODE RD39ES-B2

<CONNECTOR>

H22	*1-564-519-11	PLUG, CONNECTOR 4P
H25	*1-564-517-11	PLUG, CONNECTOR 2P
H26	*1-564-519-11	PLUG, CONNECTOR 4P
H28	*1-564-518-11	PLUG, CONNECTOR 3P
H211	*1-564-517-11	PLUG, CONNECTOR 2P
H216	*1-564-525-11	PLUG, CONNECTOR 10P
H220	*1-564-517-11	PLUG, CONNECTOR 2P
H221	*1-564-517-11	PLUG, CONNECTOR 2P
H225	*1-564-518-11	PLUG, CONNECTOR 3P

<JACK>

J1651	1-695-817-11	JACK BLOCK, PIN 3P

<TRANSISTOR>

Q1651	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1652	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1653	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

R1651	1-249-419-11	CARBON	1.5K	5%	1/4W
R1652	1-249-421-11	CARBON	2.2K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1653	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1654	1-249-430-11	CARBON	12K	5%	1/4W	
R1655	1-249-417-11	CARBON	1K	5%	1/4W	
R1656	1-249-417-11	CARBON	1K	5%	1/4W	
R1657	1-249-436-11	CARBON	39K	5%	1/4W	
R1658	1-249-437-11	CARBON	47K	5%	1/4W	
R1659	1-249-437-11	CARBON	47K	5%	1/4W	

<RELAY>

RY1651	1-515-586-11	RELAY (DS-2)
RY1652	1-515-586-11	RELAY (DS-2)

<SWITCH>

S1651	1-572-198-11	SWITCH, TACTIL
S1652	1-572-198-11	SWITCH, TACTIL
S1653	1-572-198-11	SWITCH, TACTIL
S1654	1-572-198-11	SWITCH, TACTIL
S1655	1-572-198-11	SWITCH, TACTIL

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*A-1390-296-A N BOARD, COMPLETE
****

*4-341-751-01	EYELET (EY11,EY12,EY15~EY18,EY24~EY37, EY40~EY54,EY57~EY59)
*4-341-752-01	EYELET (EY1~EY10,EY13,EY14,EY19~EY23, EY38,EY39,EY55,EY56,EY60)
*4-363-146-00	HEAT SINK, V.OUT
4-382-854-01	SCREW (M3X8), P, SW (+)
4-382-854-11	SCREW (M3X10), P, SW (+)
4-383-023-01	SPACER, MICA

<CAPACITOR>

C801	1-125-489-00	ELECT(BLOCK)	560MF	20%	200V
C802	1-123-024-21	ELECT	33MF		160V
C803	1-136-729-11	FILM	1.5MF	5%	400V
C804	1-106-383-00	MYLAR	0.047MF		200V
C805	1-102-030-00	CERAMIC	330PF	10%	500V
C806	1-130-495-00	MYLAR	0.1MF	5%	50V
C807	1-123-875-11	ELECT	10MF	20%	50V
C808	1-126-183-11	ELECT	1000MF	20%	16V
C809	1-124-903-11	ELECT	1MF	20%	50V
C810	1-124-903-11	ELECT	1MF	20%	50V
C811	1-124-902-00	ELECT	0.47MF	20%	50V
C812	1-102-973-00	CERAMIC	100PF	5%	50V
C813	1-102-244-00	CERAMIC	220PF	10%	500V
C814	1-106-391-12	MYLAR	0.1MF	10%	200V
C815	1-106-367-00	MYLAR	0.01MF	10%	200V
C816	1-124-907-11	ELECT	10MF	20%	50V
C817	1-124-119-00	ELECT	330MF	20%	16V
C818	1-102-824-00	CERAMIC	470PF	5%	50V
C819	1-124-907-11	ELECT	10MF	20%	50V
C820	1-124-907-11	ELECT	10MF	20%	50V
C821	1-124-907-11	ELECT	10MF	20%	50V
C822	1-124-034-51	ELECT	33MF	20%	16V
C823	1-124-907-11	ELECT	10MF	20%	50V
C824	1-124-034-51	ELECT	33MF	20%	16V
C825	1-124-034-51	ELECT	33MF	20%	16V
C826	1-124-907-11	ELECT	10MF	20%	50V
C827	1-124-907-11	ELECT	10MF	20%	50V
C828	1-124-907-11	ELECT	10MF	20%	50V
C829	1-124-034-51	ELECT	33MF	20%	16V

N

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C830	1-124-907-11	ELECT	10MF	20%	50V
C831	1-106-220-00	MYLAR	0.1MF	10%	100V
C832	1-124-907-11	ELECT	10MF	20%	50V
C833	1-126-233-11	ELECT	22MF	20%	50V
C834	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C835	1-124-927-11	ELECT	4.7MF	20%	50V
C836	1-130-475-00	MYLAR	0.0022MF	5%	50V
C837	1-136-169-00	FILM	0.22MF	5%	50V
C838	1-130-475-00	MYLAR	0.0022MF	5%	50V
C839	1-102-106-00	CERAMIC	100PF	10%	50V
C840 ⚠	1-136-807-11	FILM	0.018MF	3%	1.6KV
C841	1-136-729-11	FILM	1.5MF	5%	400V
C842	1-130-471-00	MYLAR	0.001MF	5%	50V
C844	1-106-391-12	MYLAR	0.1MF	10%	200V
C850	1-136-169-00	FILM	0.22MF	5%	50V
C851	1-124-907-11	ELECT	10MF	20%	50V
C852	1-124-907-11	ELECT	10MF	20%	50V
C853	1-106-220-00	MYLAR	0.1MF	10%	100V
C854	1-126-329-11	ELECT	470MF	20%	50V
C855	1-124-514-11	ELECT	100MF	20%	50V
C856	1-162-114-00	CERAMIC	0.0047MF		2KV
C858	1-124-119-00	ELECT	330MF	20%	16V
C888	1-124-464-11	ELECT	0.22MF	20%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D801	8-719-928-08	DIODE ERD28-08S
D802	8-719-300-80	DIODE RU-1C
D803	8-719-109-85	DIODE RD5.1ES-B2
D804	8-719-911-19	DIODE 1SS119
D805	8-719-911-19	DIODE 1SS119
D806	8-719-109-85	DIODE RD5.1ES-B2
D807	8-719-109-85	DIODE RD5.1ES-B2
D808	8-719-911-19	DIODE 1SS119
D809	8-719-911-19	DIODE 1SS119
D810	8-719-911-19	DIODE 1SS119
D811	8-719-109-85	DIODE RD5.1ES-B2
D812	8-719-911-19	DIODE 1SS119
D813	8-719-911-19	DIODE 1SS119
D814	8-719-911-19	DIODE 1SS119
D815	8-719-110-36	DIODE RD13ES-B2
D817	8-719-945-80	DIODE ERC06-15S
D818	8-719-911-19	DIODE 1SS119
D820	8-719-911-19	DIODE 1SS119
D850	8-719-109-71	DIODE RD3.9ES-B1
D851 ⚠	8-719-903-09	DIODE V30N
D852	8-719-911-19	DIODE 1SS119
D853 ⚠	8-719-903-09	DIODE V30N

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC801	8-759-982-13	IC RC7812FA
IC802	8-759-103-93	IC UPC393C
IC803	8-759-990-82	IC TL082CP
IC804	8-759-103-93	IC UPC393C
IC805	8-759-100-75	IC UPC1394C

<COIL>

REF.NO.	PART NO.	DESCRIPTION
L801	1-459-862-11	COIL, CHOKE 90UH
L802	1-424-603-11	COIL, CHOKE 1.05MMH
L803	1-459-313-00	COIL WITH CORE (HWC)
L804	1-410-482-31	INDUCTOR 100UH
L805 ⚠	1-424-603-11	COIL, CHOKE 1.05MMH

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
N1	1-506-348-99	PIN, CONNECTOR 3P
N2	*1-564-508-11	PLUG, CONNECTOR 5P
N3	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
N4	*1-564-507-11	PLUG, CONNECTOR 4P
N5	*1-564-508-11	PLUG, CONNECTOR 5P
N6	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
N7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
N8	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
N9	1-506-348-99	PIN, CONNECTOR 3P
N10	*1-564 511-11	PLUG, CONNECTOR 8P
N20	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P
N21	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P
N30	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
N851	*1-506-371-00	PIN, CONNECTOR 2P
N853	*1-506-371-00	PIN, CONNECTOR 2P

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION
NL801	1-519-108-99	LAMP, NEON

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q801 ⚠	8-729-201-61	TRANSISTOR 2SC2555-1
Q802	8-729-119-80	TRANSISTOR 2SC2688-LK
Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q806	8-729-119-80	TRANSISTOR 2SC2688-LK
Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q811 ⚠	8-729-805-07	TRANSISTOR 2SD1887-CA
Q812	8-729-804-48	TRANSISTOR 2SC3675
Q820	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q851	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q852	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q853	8-729-820-98	TRANSISTOR 2SC4256CB

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R801	1-216-378-11	METAL OXIDE	5.6	5%	2W	F
R802	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R803	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R804	1-249-429-11	CARBON	10K	5%	1/4W	
R805	1-249-423-11	CARBON	3.3K	5%	1/4W	
R806	1-249-425-11	CARBON	4.7K	5%	1/4W	
R807	1-249-441-11	CARBON	100K	5%	1/4W	
R808	1-249-417-11	CARBON	1K	5%	1/4W	
R809	1-249-417-11	CARBON	1K	5%	1/4W	
R810	1-249-441-11	CARBON	100K	5%	1/4W	
R811	1 249-421-11	CARBON	2.2K	5%	1/4W	
R812	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R813	1-215-921-11	METAL OXIDE	4.7K	5%	3W	F
R814	1-249-409-11	CARBON	220	5%	1/4W	
R815	1-249-415-11	CARBON	680	5%	1/4W	
R816	1-214-777-00	METAL	100K	1%	1/4W	
R817	1-215-471-00	METAL	120K	1%	1/4W	
R818	1-215-471-00	METAL	120K	1%	1/4W	
R819	1-215-450-00	METAL	16K	1%	1/4W	
R820	1-215-451-00	METAL	18K	1%	1/4W	
R821	1-249-423-11	CARBON	3.3K	5%	1/4W	
R822	1-249-433-11	CARBON	22K	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R823	1-249-429-11	CARBON	10K	5%	1/4W	
R824	1-215-469-00	METAL	100K	1%	1/4W	
R825	1-215-453-00	METAL	22K	1%	1/4W	
R826	1-214-962-00	METAL	820K	1%	1/4W	
R827	1-214-764-00	METAL	30K	1%	1/4W	
R828	1-215-455-00	METAL	27K	1%	1/4W	
R829	1-215-455-00	METAL	27K	1%	1/4W	
R830	1-215-928-11	METAL OXIDE	68K	5%	3W	F
R831	1-215-928-11	METAL OXIDE	68K	5%	3W	F
R832	1-249-417-11	CARBON	1K	5%	1/4W	
R833	1-249-419-11	CARBON	1.5K	5%	1/4W	
R834	1-249-419-11	CARBON	1.5K	5%	1/4W	
R835	1-215-429-00	METAL	2.2K	1%	1/4W	
R836	1-215-435-00	METAL	3.9K	1%	1/4W	
R837	1-249-433-11	CARBON	22K	5%	1/4W	
R838	1-249-435-11	CARBON	33K	5%	1/4W	
R839	1-249-438-11	CARBON	56K	5%	1/4W	
R840	1-249-434-11	CARBON	27K	5%	1/4W	
R841	1-249-429-11	CARBON	10K	5%	1/4W	
R842	1-249-435-11	CARBON	33K	5%	1/4W	
R843	1-249-423-11	CARBON	3.3K	5%	1/4W	
R844	1-249-433-11	CARBON	22K	5%	1/4W	
R845	1-249-435-11	CARBON	33K	5%	1/4W	
R846	1-249-429-11	CARBON	10K	5%	1/4W	
R847	1-214-761-00	METAL	22K	1%	1/4W	
R848	1-215-429-00	METAL	2.2K	1%	1/4W	
R849	1-215-421-00	METAL	1K	1%	1/4W	
R850	1-215-429-00	METAL	2.2K	1%	1/4W	
R851	1-215-404-00	METAL	200	1%	1/4W	
⧓R852 ⚠.		METAL			1/4W	
R853	1-215-469-00	METAL	100K	1%	1/4W	
R854	1-249-430-11	CARBON	12K	5%	1/4W	
R855	1-215-469-00	METAL	100K	1%	1/4W	
R856	1-249-430-11	CARBON	12K	5%	1/4W	
R857	1-249-433-11	CARBON	22K	5%	1/4W	
R858	1-249-413-11	CARBON	470	5%	1/4W	
R859	1-249-435-11	CARBON	33K	5%	1/4W	
R860	1-249-441-11	CARBON	100K	5%	1/4W	
R861	1-249-421-11	CARBON	2.2K	5%	1/4W	
R862	1-249-434-11	CARBON	27K	5%	1/4W	
R863	1-249-431-11	CARBON	15K	5%	1/4W	
R864	1-249-428-11	CARBON	8.2K	5%	1/4W	
R865	1-249-440-11	CARBON	82K	5%	1/4W	
R866	1-249-436-11	CARBON	39K	5%	1/4W	
R867	1-249-437-11	CARBON	47K	5%	1/4W	
R868	1-249-428-11	CARBON	8.2K	5%	1/4W	
R869	1-249-429-11	CARBON	10K	5%	1/4W	
R870	1-249-417-11	CARBON	1K	5%	1/4W	
R871	1-249-440-11	CARBON	82K	5%	1/4W	
R872	1-249-423-11	CARBON	3.3K	5%	1/4W	
R873	1-249-441-11	CARBON	100K	5%	1/4W	
R874	1-249-435-11	CARBON	33K	5%	1/4W	
R875	1-249-421-11	CARBON	2.2K	5%	1/4W	
R876	1-215-426-00	METAL	1.6K	1%	1/4W	
R877	1-249-435-11	CARBON	33K	5%	1/4W	
R878	1-249-441-11	CARBON	100K	5%	1/4W	
R879	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R880	1-249-429-11	CARBON	10K	5%	1/4W	
R881	1-214-761-00	METAL	22K	1%	1/4W	
R882	1-249-433-11	CARBON	22K	5%	1/4W	
R883	1-249-417-11	CARBON	1K	5%	1/4W	
R884	1-215-894-11	METAL OXIDE	2.2K	5%	2W	F
R885	1-249-438-11	CARBON	56K	5%	1/4W	
R886	1-249-414-11	CARBON	560	5%	1/4W	
R887	1-215-397-00	METAL	100	1%	1/4W	
R888	1-249-410-11	CARBON	270	5%	1/4W	
R889	1-249-417-11	CARBON	1K	5%	1/4W	
R890	1-249-417-11	CARBON	1K	5%	1/4W	
R891	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R892	1-249-417-11	CARBON	1K	5%	1/4W	F
R893	1-215-453-00	METAL	22K	1%	1/4W	
R894	1-249-401-11	CARBON	47	5%	1/4W	
R895	1-202 731-00	SOLID	10M	20%	1/2W	
R896	1-260-111-11	CARBON	10K	5%	1/2W	
R897	1-247-881-00	CARBON	120K	5%	1/4W	
R898	1-202-730-00	SOLID	8.2M	20%	1/2W	
R899	1-249-429-11	CARBON	10K	5%	1/4W	
R903	1-202-541-81	SOLID	47	20%	1/2W	
R904	1-215-928-11	METAL OXIDE	68K	5%	3W	F
R905	1-215-911-11	METAL OXIDE	100	5%	3W	F

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK

<TRANSFORMER>

T801 ⚠.	1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE
T802	1-437-090-00	HDT
T803 ⚠.	1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-2630B4)

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*A-1390-297-A ZR BOARD, COMPLETE
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*4-341-752-01 EYELET (EY1,EY2)

<CAPACITOR>

C1901	1-162-115-00	CERAMIC	330PF	10%	2KV
C1902	1-162-115-00	CERAMIC	330PF	10%	2KV

<RESISTOR>

R1901	1-202-822-00	SOLID	2.2K	20%	1/2W
R1902	1-202-822-00	SOLID	2.2K	20%	1/2W
R1903	1-249-414-11	CARBON	560	5%	1/4W
R1904	1-249-414-11	CARBON	560	5%	1/4W

<CONNECTOR>

ZR1	*1-564-522-11	PLUG, CONNECTOR 7P
ZR2	*1-564-518-11	PLUG, CONNECTOR 3P
ZR18	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P

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*A-1390-298-A ZG BOARD, COMPLETE
****

*4-341-752-01 EYELET (EY3,EY4)

<CAPACITOR>

C1911	1-162-115-00	CERAMIC	330PF	10%	2KV
C1912	1-162-115-00	CERAMIC	330PF	10%	2KV

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

ZG ZB S U

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1911	1-202-822-00	SOLID 2.2K 20% 1/2W	
R1912	1-202-822-00	SOLID 2.2K 20% 1/2W	
R1913	1-249-414-11	CARBON 560 5% 1/4W	
R1914	1-249-414-11	CARBON 560 5% 1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
ZG2	*1-564-523-11	PLUG, CONNECTOR 8P	
ZG19	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	

* * *

*A-1390-299-A ZB BOARD, COMPLETE

*4-341-752-01 EYELET (EY5,EY6)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1921	1-162-115-00	CERAMIC 330PF 10% 2KV	
C1922	1-162-115-00	CERAMIC 330PF 10% 2KV	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1921	1-202-822-00	SOLID 2.2K 20% 1/2W	
R1922	1-202-822-00	SOLID 2.2K 20% 1/2W	
R1923	1-249-414-11	CARBON 560 5% 1/4W	
R1924	1-249-414-11	CARBON 560 5% 1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
ZB3	*1-564-524-11	PLUG, CONNECTOR 9P	
ZB20	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	

* * *

*1-643-669-11 S BOARD

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C3403	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
C3408	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C3409	1-124-477-11	ELECT 47MF 20% 16V	
C3411	1-124-034-51	ELECT 33MF 20% 16V	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC3401	8-759-403-44	IC MN1280-S	
IC3402	8-759-070-42	IC M37201M6-A18FP	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L3401	1-408-421-00	INDUCTOR 100UH	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R3401	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3402	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R3403	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R3404	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R3405	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R3406	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R3407	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R3408	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R3409	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R3476	1-216-295-00	METAL GLAZE 0 5% 1/10W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
S45	*1-564-511-71	PLUG, CONNECTOR 8P	
S46	*1-564-506-11	PLUG, CONNECTOR 3P	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X3401	1-577-082-11	VIBRATOR, CERAMIC	

* * *

*A-1394-400-A U BOARD, COMPLETE

*4-341-751-01 EYELET (EY1003~EY1005)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1004	1-102-125-00	CERAMIC 0.0047MF 10% 50V	
C1005	1-126-301-11	ELECT 1MF 20% 50V	
C1006	1-164-096-11	CERAMIC 0.01MF 50V	
C1007	1-124-598-11	ELECT 22MF 20% 25V	
C1008	1-124-598-11	ELECT 22MF 20% 25V	
C1010	1-124-465-00	ELECT 0.47MF 20% 50V	
C1011	1-124-465-00	ELECT 0.47MF 20% 50V	
C1012	1-124-465-00	ELECT 0.47MF 20% 50V	
C1013	1-102-125-00	CERAMIC 0.0047MF 10% 50V	
C1014	1-126-163-11	ELECT 4.7MF 20% 50V	
C1016	1-126-163-11	ELECT 4.7MF 20% 50V	
C1018	1-126-301-11	ELECT 1MF 20% 50V	
C1020	1-124-242-00	ELECT 33MF 20% 25V	
C1021	1-124-465-00	ELECT 0.47MF 20% 50V	
C1022	1-124-242-00	ELECT 33MF 20% 25V	
C1026	1-102-949-00	CERAMIC 12PF 5% 50V	
C1027	1-102-949-00	CERAMIC 12PF 5% 50V	
C1028	1-124-242-00	ELECT 33MF 20% 25V	
C1029	1-124-282-00	ELECT 22MF 20% 16V	
C1030	1-124-478-11	ELECT 100MF 20% 25V	
C1031	1-102-963-00	CERAMIC 33PF 5% 50V	
C1033	1-124-598-11	ELECT 22MF 20% 25V	
C1034	1-124-282-00	ELECT 22MF 20% 16V	
C1036	1-124-282-00	ELECT 22MF 20% 16V	
C1037	1-124-282-00	ELECT 22MF 20% 16V	
C1039	1-124-478-11	ELECT 100MF 20% 25V	
C1047	1-124-465-00	ELECT 0.47MF 20% 50V	
C1048	1-126-301-11	ELECT 1MF 20% 50V	
C1049	1-124-598-11	ELECT 22MF 20% 25V	
C1051	1-124-465-00	ELECT 0.47MF 20% 50V	
C1055	1-124-589-11	ELECT 47MF 20% 16V	
C1056	1-124-499-11	ELECT 1MF 20% 50V	
C1057	1-124-768-11	ELECT 4.7MF 20% 50V	
C1059	1-124-499-11	ELECT 1MF 20% 50V	
C1060	1-124-499-11	ELECT 1MF 20% 50V	
C1061	1-124-499-11	ELECT 1MF 20% 50V	
C1062	1-102-129-00	CERAMIC 0.01MF 10% 50V	
C1063	1-124-768-11	ELECT 4.7MF 20% 50V	
C1066	1-126-101-11	ELECT 100MF 20% 16V	

<FILTER BLOCK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CM1002	1-464-880-11	FILTER BLOCK, COM (CFB-2)	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION				REMARK
D1005	8-719-110-36	DIODE RD13ES-B2				
D1008	8-719-109-65	DIODE RD3.3ES-B1				
D1009	8-719-110-36	DIODE RD13ES-B2				
D1010	8-719-110-36	DIODE RD13ES-B2				
D1011	8-719-110-36	DIODE RD13ES-B2				
D1012	8-719-110-36	DIODE RD13ES-B2				
D1013	8-719-110-36	DIODE RD13ES-B2				
D1017	8-719-110-36	DIODE RD13ES-B2				
D1018	8-719-110-36	DIODE RD13ES-B2				
D1019	8-719-110-36	DIODE RD13ES-B2				
D1020	8-719-109-66	DIODE RD3.3ES-B2				
D1021	8-719-109-66	DIODE RD3.3ES-B2				
D1022	8-719-109-66	DIODE RD3.3ES-B2				

<IC>

REF.NO.	PART NO.	DESCRIPTION				REMARK
IC1002	8-752-056-50	IC CXA1545S				
IC1011	8-759-145-57	IC UPC4557C				

<COIL>

REF.NO.	PART NO.	DESCRIPTION				REMARK
L1001	1-408-422-00	INDUCTOR	120UH			
L1002	1-408-422-00	INDUCTOR	120UH			

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q1009	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1010	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1011	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1014	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1015	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1016	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1017	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1018	8-729-141-26	TRANSISTOR 2SC3622A-LK				
Q1019	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1020	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1021	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1022	8-729-141-26	TRANSISTOR 2SC3622A-LK				
Q1023	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1029	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1030	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1031	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1032	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1033	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q1034	8-729-119-76	TRANSISTOR 2SA1175-HFE				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1011	1-249-435-11	CARBON	33K	5%	1/4W	
R1012	1-249-434-11	CARBON	27K	5%	1/4W	
R1013	1-249-417-11	CARBON	1K	5%	1/4W	
R1014	1-249-441-11	CARBON	100K	5%	1/4W	
R1015	1-215-437-00	METAL	4.7K	1%	1/4W	
R1016	1-249-441-11	CARBON	100K	5%	1/4W	
R1017	1-249-405-11	CARBON	100	5%	1/4W	
R1018	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1019	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1020	1-249-405-11	CARBON	100	5%	1/4W	
R1021	1-249-405-11	CARBON	100	5%	1/4W	
R1023	1-249-405-11	CARBON	100	5%	1/4W	
R1024	1-249-437-11	CARBON	47K	5%	1/4W	
R1025	1-249-417-11	CARBON	1K	5%	1/4W	
R1026	1-215-437-00	METAL	4.7K	1%	1/4W	
R1028	1-249-434-11	CARBON	27K	5%	1/4W	
R1029	1-249-435-11	CARBON	33K	5%	1/4W	
R1030	1-249-417-11	CARBON	1K	5%	1/4W	
R1032	1-249-417-11	CARBON	1K	5%	1/4W	
R1033	1-249-393-11	CARBON	10	5%	1/4W	F
R1034	1-249-417-11	CARBON	1K	5%	1/4W	
R1036	1-249-440-11	CARBON	82K	5%	1/4W	
R1037	1-249-440-11	CARBON	82K	5%	1/4W	
R1038	1-249-440-11	CARBON	82K	5%	1/4W	
R1043	1-249-417-11	CARBON	1K	5%	1/4W	
R1046	1-249-413-11	CARBON	470	5%	1/4W	
R1048	1-249-405-11	CARBON	100	5%	1/4W	
R1050	1-249-405-11	CARBON	100	5%	1/4W	
R1051	1-249-417-11	CARBON	1K	5%	1/4W	
R1052	1-249-413-11	CARBON	470	5%	1/4W	
R1054	1-249-405-11	CARBON	100	5%	1/4W	
R1055	1-249-413-11	CARBON	470	5%	1/4W	
R1056	1-249-405-11	CARBON	100	5%	1/4W	
R1057	1-249-441-11	CARBON	100K	5%	1/4W	
R1059	1-249-405-11	CARBON	100	5%	1/4W	
R1061	1-249-409-11	CARBON	220	5%	1/4W	
R1062	1-249-441-11	CARBON	100K	5%	1/4W	
R1063	1-249-409-11	CARBON	220	5%	1/4W	
R1066	1-215-437-00	METAL	4.7K	1%	1/4W	
R1067	1-215-437-00	METAL	4.7K	1%	1/4W	
R1068	1-215-437-00	METAL	4.7K	1%	1/4W	
R1069	1-215-437-00	METAL	4.7K	1%	1/4W	
R1070	1-249-411-11	CARBON	330	5%	1/4W	
R1071	1-249-431-11	CARBON	15K	5%	1/4W	
R1073	1-249-431-11	CARBON	15K	5%	1/4W	
R1077	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1078	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1079	1-249-405-11	CARBON	100	5%	1/4W	
R1080	1-215-423-00	METAL	1.2K	1%	1/4W	
R1081	1-215-421-00	METAL	1K	1%	1/4W	
R1089	1-249-405-11	CARBON	100	5%	1/4W	
R1094	1-249-405-11	CARBON	100	5%	1/4W	
R1096	1-249-405-11	CARBON	100	5%	1/4W	
R1099	1-249-413-11	CARBON	470	5%	1/4W	
R1110	1-249-405-11	CARBON	100	5%	1/4W	
R1116	1-249-441-11	CARBON	100K	5%	1/4W	
R1118	1-249-413-11	CARBON	470	5%	1/4W	
R1121	1-249-441-11	CARBON	100K	5%	1/4W	
R1133	1-249-405-11	CARBON	100	5%	1/4W	
R1134	1-249-405-11	CARBON	100	5%	1/4W	
R1138	1-249-415-11	CARBON	680	5%	1/4W	
R1139	1-249-413-11	CARBON	470	5%	1/4W	
R1140	1-249-413-11	CARBON	470	5%	1/4W	
R1141	1-249-413-11	CARBON	470	5%	1/4W	
R1142	1-249-415-11	CARBON	680	5%	1/4W	
R1147	1-249-405-11	CARBON	100	5%	1/4W	
R1148	1-249-405-11	CARBON	100	5%	1/4W	
R1149	1-249-417-11	CARBON	1K	5%	1/4W	
R1150	1-249-405-11	CARBON	100	5%	1/4W	
R1151	1-249-405-11	CARBON	100	5%	1/4W	
R1152	1-249-417-11	CARBON	1K	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
U12	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P	
U13	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P	
U16	*1-564-513-11	PLUG, CONNECTOR 10P	
U22	1-566-942-11	CONNECTOR,HINGE(RECEPTACLE)30P	
U23	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

UT

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*A-1394-401-A UT BOARD, COMPLETE
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*4-341-751-01 EYELET (EY1101)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1152	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C1154	1-164-096-11	CERAMIC 0.01MF 50V	
C1155	1-126-103-11	ELECT 470MF 20% 16V	
C1158	1-124-598-11	ELECT 22MF 20% 25V	
C1160	1-124-598-11	ELECT 22MF 20% 25V	
C1161	1-124-598-11	ELECT 22MF 20% 25V	
C1164	1-126-103-11	ELECT 470MF 20% 16V	
C1165	1-126-301-11	ELECT 1MF 20% 50V	
C1166	1-126-301-11	ELECT 1MF 20% 50V	
C1167	1-126-301-11	ELECT 1MF 20% 50V	
C1168	1-126-301-11	ELECT 1MF 20% 50V	
C1199	1-102-129-00	CERAMIC 0.01MF 10% 50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1152	8-719-110-36	DIODE RD13ES-B2	
D1158	8-719-110-36	DIODE RD13ES-B2	
D1159	8-719-110-36	DIODE RD13ES-B2	
D1160	8-719-110-36	DIODE RD13ES-B2	
D1163	8-719-110-36	DIODE RD13ES-B2	
D1164	8-719-110-36	DIODE RD13ES-B2	
D1165	8-719-110-36	DIODE RD13ES-B2	
D1166	8-719-110-36	DIODE RD13ES-B2	
D1167	8-719-110-36	DIODE RD13ES-B2	
D1168	8-719-110-36	DIODE RD13ES-B2	
D1169	8-719-110-36	DIODE RD13ES-B2	
D1170	8-719-110-36	DIODE RD13ES-B2	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J1001	1-537-187-11	TERMINAL, PUSH (4P)	
J1003	1-573-970-11	BLOCK, (S) TERMINAL	
J1004	1-695-049-11	BLOCK, (S) TERMINAL	
J1005	1-695-054-11	JACK BLOCK, PIN	
J1006	1-573-970-11	BLOCK, (S) TERMINAL	
J1007	1-573-969-11	JACK BLOCK, PIN	
J1008	1-573-969-11	JACK BLOCK, PIN	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1153	1-249-403-11	CARBON 68 5% 1/4W	
R1164	1-247-895-00	CARBON 470K 5% 1/4W	
R1165	1-247-895-00	CARBON 470K 5% 1/4W	
R1166	1-247-895-00	CARBON 470K 5% 1/4W	
R1167	1-247-895-00	CARBON 470K 5% 1/4W	
R1168	1-247-895-00	CARBON 470K 5% 1/4W	
R1169	1-249-403-11	CARBON 68 5% 1/4W	
R1170	1-249-403-11	CARBON 68 5% 1/4W	
R1171	1-247-895-00	CARBON 470K 5% 1/4W	
R1172	1-247-895-00	CARBON 470K 5% 1/4W	
R1173	1-247-804-11	CARBON 75 5% 1/4W	
R1174	1-247-895-00	CARBON 470K 5% 1/4W	
R1175	1-247-895-00	CARBON 470K 5% 1/4W	
R1176	1-247-804-11	CARBON 75 5% 1/4W	
R1178	1-247-895-00	CARBON 470K 5% 1/4W	
R1179	1-247-895-00	CARBON 470K 5% 1/4W	
R1180	1-247-804-11	CARBON 75 5% 1/4W	
R1181	1-247-804-11	CARBON 75 5% 1/4W	
R1183	1-247-895-00	CARBON 470K 5% 1/4W	
R1184	1-247-895-00	CARBON 470K 5% 1/4W	
R1185	1-247-895-00	CARBON 470K 5% 1/4W	
R1186	1-247-895-00	CARBON 470K 5% 1/4W	
R1188	1-247-804-11	CARBON 75 5% 1/4W	
R1191	1-215-437-00	METAL 4.7K 1% 1/4W	
R1192	1-215-437-00	METAL 4.7K 1% 1/4W	
R1193	1-215-437-00	METAL 4.7K 1% 1/4W	
R1194	1-215-437-00	METAL 4.7K 1% 1/4W	
R1196	1-249-426-11	CARBON 5.6K 5% 1/4W	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION	REMARK
S1150	1-572-198-11	SWITCH, KEYBOARD	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
UT11	*1-564-519-11	PLUG, CONNECTOR 4P	
UT22	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P	
UT23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
UT35	*1-564-518-11	PLUG, CONNECTOR 3P	

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MISCELLANEOUS
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠.1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)	
	⚠.1-451-396-21	DEFLECTION YOKE (Y936PA)	
	⚠.1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
	⚠.1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
	1-544-768-11	SPEAKER (13CM) (COAXIAL)	
	*1-555-110-00	CABLE, PIN	
	1-561-306-00	JACK, PIN (F)	
	1-574-590-31	LEAD ASSY, HIGH-VOLTAGE	
	⚠.1-696-002-12	CORD, POWER (WITH NOISE FILTER)	
	⚠.8-736-631-05	PICTURE TUBE (SD-249 (G))	
	⚠.8-736-632-05	PICTURE TUBE (SD-249 (B))	
	⚠.8-736-633-05	PICTURE TUBE (SD-249 (R))	
⧓R900	⚠.	RES, METAL FILM 1/4W	
⧓R901	⚠.	RES, METAL FILM 1/4W	
⧓R902	⚠.	RES, METAL FILM 1/4W	

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ACCESSORIES AND PACKING MATERIALS
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<KPR-46EXR15>

REF.NO.	PART NO.	DESCRIPTION	REMARK
	3-755-847-21	MANUAL, INSTRUCTION (ENGLISH)	
	3-755-847-41	MANUAL, INSTRUCTION (SPANISH)	
	*4-030-895-01	JOINT	
	*4-037-126-01	INDIVIDUAL CARTON	
	*4-037-127-01	TRAY	
	*4-037-128-01	CUSHION (UPPER) (ASSY)	
	*4-037-129-01	CUSHION (LOWER) (ASSY)	
	*4-037-674-01	PLATE, TOP	
	*4-037-918-01	PLATE, BOTTOM	
	*4-388-954-01	BAG, PROTECTION	

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<KPR-53EXR15>	
	3-755-847-21	MANUAL, INSTRUCTION (ENGLISH)	
	3-755-847-41	MANUAL, INSTRUCTION (SPANISH)	
	*4-030-895-01	JOINT	
	*4-037-165-01	INDIVIDUAL CARTON	
	*4-037-166-01	TRAY	
	*4-037-167-01	CUSHION (UPPER) (ASSY)	
	*4-037-168-01	CUSHION (LOWER) (ASSY)	
	*4-037-328-01	PLATE, TOP	
	*4-038-043-01	PLATE, BOTTOM	
	*4-388-954-01	BAG, PROTECTION	
		REMOTE COMMANDER	
	1-693-114-11	REMOTE COMMANDER (RM-Y112)	
	9-902-719-01	COVER (FOR RM-Y112)	
	9-998-214-01	COVER, BATTERY (FOR RM-Y112)	

9-964-891-01

Sony Corporation
TV Group

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